

# Rock Products

DEVOTED TO  
Concrete and Manufactured  
Building Materials

Volume XII.

CHICAGO, ILL., AUGUST 22, 1912.

Number 2.

**CAROLINA PORTLAND CEMENT COMPANY**

We are the largest distributors of Portland Cement, Lime Plaster, Fire-brick and General Building Material in the Southern States, and have stocks of Standard Brands at all of the Atlantic and Gulf Seaports, and at our interior mills and warehouses, for prompt and economical distribution to all Southern territory. Write for our delivered prices anywhere. Also Southern agents for the "Dehydratine's" waterproofing material. "Universal," "Acme" and "Electroid" Brands Ready Roofing. Get our prices.  
 Charleston, S. C. Birmingham, Ala. Atlanta, Ga. New Orleans, La.

**UNION MINING COMPANY**

Manufacturers of the Celebrated



DEVOTE a special department to the manufacture of Brick particularly adapted both physically and chemically to

**Lime Kiln and Cement Kiln Construction**

Large stock carried. Prompt shipments made. Write for quotations on Standard and Special shapes, to

**UNION MINING CO.**  
Mount Savage, Md.  
CAPACITY, 60,000 PER DAY  
ESTABLISHED 1841**Special Features****Ohio Builders Supply Association****American Road Congress****CHICAGO BELTING CO.****PURE OAK TANNED LEATHER BELTING**

Send for Our Illustrated Catalog

111 North Green St., CHICAGO

FOR GRIFFIN  
TUBE AND  
BALL MILLS

Branches:

NEW YORK

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NEW ORLEANS

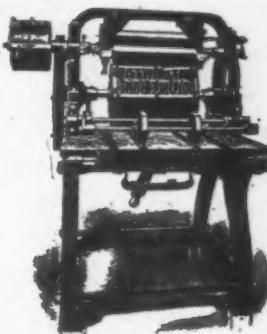
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**KOEHLER BAG PRINTER**

is not only the fastest bag printer on the market--but the best and cheapest as well.

Write to us today for full particulars and prices. Hundreds of them in daily use giving perfect satisfaction.

**The Henry L. Koehler Manufacturing Co.**  
410 W. Main Street, Louisville, Kentucky

**Phoenix Portland Cement**

UNEXCELLED FOR ALL USES.

**PHOENIX PORTLAND CEMENT CO.**  
NAZARETH, PA.Sole Selling Agent, WILLIAM G. HARTRANFT CEMENT CO.  
Real Estate Trust Building, PHILADELPHIA, PENNSYLVANIA.**Ottawa Silica Co.'s Washed White Flint Sand**

Is used for sawing stone in more than a dozen states. Cuts more and lasts longer than any other sand on the market. Unexcelled for Roofing, Facing Cement Blocks, White Plaster, etc. Freight rates and prices on application.

**OTTAWA SILICA CO.**

Ottawa, Ill.

**The Ironton Portland Cement Co.**

Manufacturers of the  
Celebrated Limestone Brand of Portland Cement

Used by the Railroads in Kentucky, Ohio, West Virginia, and Virginia during the past five years.  
Cement as finely ground as any on the market.  
Guaranteed to pass all the standard specifications.

Plant located at Ironton, O., within easy access to seven States, namely, Ohio, Indiana, Kentucky, West Virginia, Virginia, Tennessee and North Carolina.  
Shipments via the N. & W. Ry., C. & O. Ry., C. H. & D. Ry., D. T. & I. Ry., or Ohio River.

Write for Prices

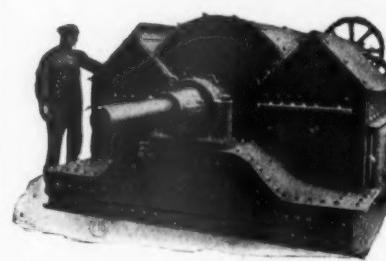


**The Ironton Portland Cement Co.**  
Ironton, Ohio

**"PENNSYLVANIA"**  
HAMMER CRUSHERS

For Pulverizing Lime-stone, Lime, Cement Rock, Marl, Shale, Etc.

Main Frame of steel, "Ball and Socket" Self aligning Bearings; forged Steel Shaft; Steel Wear Liners; Cage adjustable by hand wheel while Crusher is running.  
No other hammer Crusher has such a big Safety Factor.



PENNSYLVANIA CRUSHER CO.  
Philadelphia  
New York Pittsburgh



For Prices Any Where in  
CANADA

Write or Wire Our Nearest Sales Office

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Cement Company  
LIMITED**

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Montreal  
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Lakefield  
Calgary

Port Colborne  
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**Quality,  
Quantity and  
Co-operation**



Let our nation-wide co-operative advertising campaign focus the demand for cement into your warehouse. Let our eleven mills supply your need and let our quality insure you increasing demands for



**Lehigh Portland Cement**

Chicago, Ill.

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ONE GRADE—ONE BRAND

**Alpha Portland Cement**

Best in the World for  
Sidewalks

Write for our Handsomely Illustrated Book. Sent Free.

General Offices: No. 7 Center Square, EASTON, PA.

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**Northwestern Portland Cement**

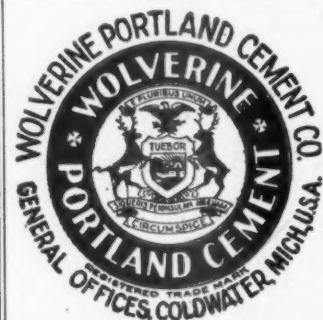


The Reliable Portland  
Cement

A Portland Cement  
for the

**NORTHWEST**

NORTHWESTERN STATES PORTLAND CEMENT COMPANY  
MASON CITY, IOWA



**"WOLVERINE"**  
The Alright Cement

MADE RIGHT SOLD RIGHT  
WORKS RIGHT WEARS RIGHT

The Best is None Too Good For You.  
Insist Upon.

**"WOLVERINE"**

Write for Booklet and Quotations.  
Factories at Coldwater and Quincy, Mich.  
Capacity 3500 Daily.

**WOLVERINE PORTLAND CEMENT COMPANY**

W. E. COBEAN, Sales Agent,  
Coldwater, Michigan

Main Office, Coldwater, Mich.







# Industrial Locomotives

for burning Coal, Wood or Oil.



THE construction of our standard light locomotives embodies all the essential features which experience has taught us go to make up a satisfactory locomotive.

They are the product of wide experience, are built for hard work, simple in design, have a minimum number of moving parts and are accessible for making repairs. The wear and repair of a locomotive are in direct proportion to the number of movable parts.

Every piece of material which enters into their construction must first undergo a severe test and must conform to rigid specifications. This insures the use of proper materials for every part.

In buying a locomotive from us you get the benefit of the knowledge of engineers who make a study of locomotive requirements, the experience gained in building over 50,000 locomotives, and the guarantee of a \$50,000,000.00 company.

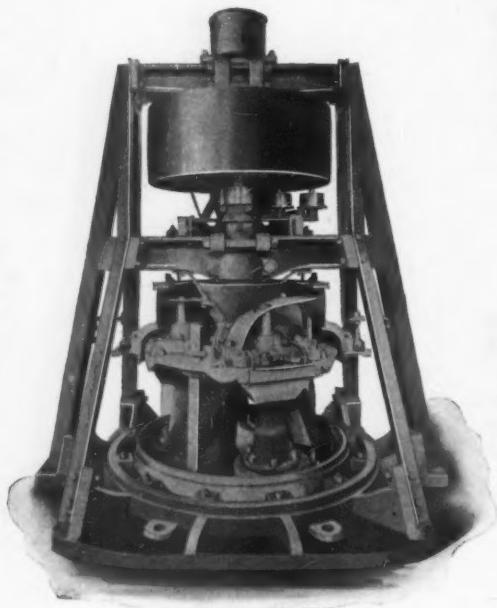
## AMERICAN LOCOMOTIVE COMPANY

30 CHURCH STREET, NEW YORK

McCormick Building, Chicago

N. B. Livermore & Company, Los Angeles; San Francisco; Seattle; Portland, Oregon

Dominion Express Building, Montreal, Canada



## The Bradley Three Roll Mill

For That Pulverized Limestone  
Plant is the Correct "Dope"

Economical in upkeep, Easy to Operate, no Auxiliary Machinery used to procure necessary fineness. It sure is a powerful and fine grinder.

Hundreds in successful operation.

## INVESTIGATE IT

Catalog and Further Information Upon Request

# Bradley Pulverizer Company, Boston

MAKERS OF THE FAMOUS GIANT GRIFFIN MILL



A. M. BATES  
CHICAGO, ILL.

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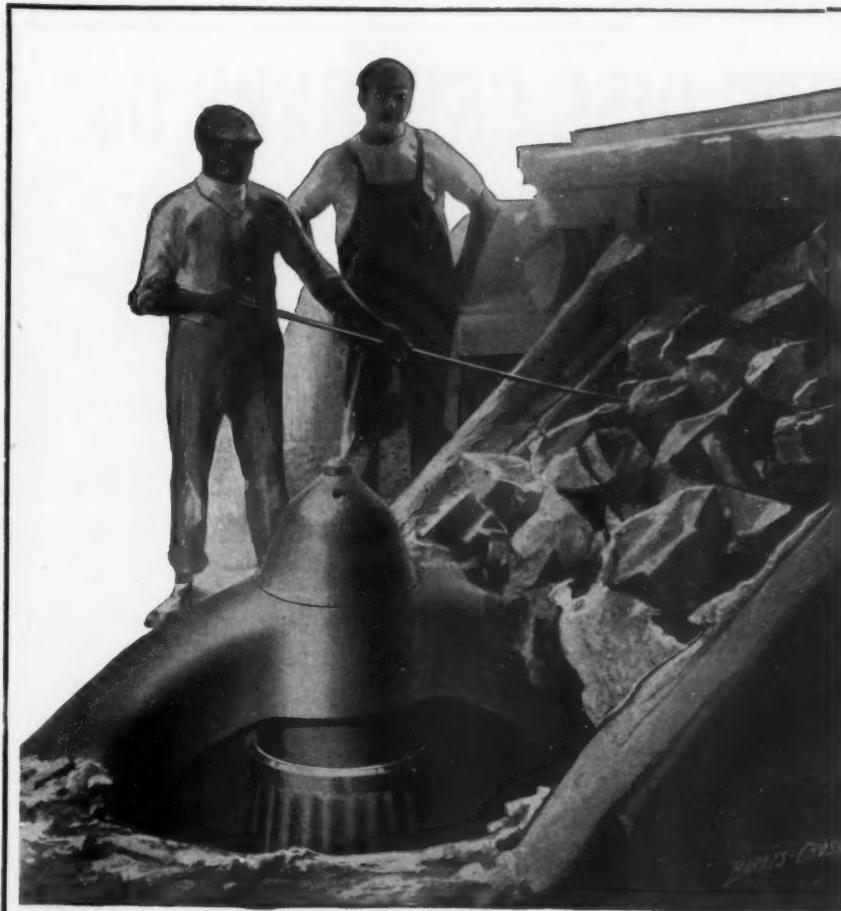
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## "Forgot to Oil It—"

The oft-repeated story of the man whose plant is out of order. Don't rely on memory, and you'll avoid expensive shut-downs. In the Symons Breaker, lubrication is automatic. The oil pump's memory never fails. Read the rest.

### There Is Only One Crusher with an Automatic Oiling System

*The Crusher's Life Blood is Oil*

Rock breakers work under most trying conditions, continually enveloped in a cloud of dust. It is very difficult, even with the "tightest fit," to exclude dirt from the running parts. The bearings are subject to immense pressures, very irregularly applied. When you add to these unfavorable conditions the further danger of careless supervision, any mechanic will admit the vital importance, to the practical quarryman, of the automatic oiling system peculiar to the

## Symons Crusher

The oil pressure excludes the dirt. Where oil cannot get out, dirt cannot get in. The steady flow of oil (volume variable to suit conditions) washes the bearings clean, smooth and cool, immerses the gears and then returns to the tank to be used again.

It's a winning combination—only two big bearings, carrying a greatly reduced working pressure, guarded from dirt and protected from wearing and heating by a continuous oil-flow, with the working load evenly distributed over the surface of the long eccentric. But that's not half the story which we would like to tell you. Write for our catalog No. 166.

**The T. L. Smith Co.**  
1322 Majestic Building, MILWAUKEE, WIS.

Old Colony Building, CHICAGO, ILL.

Schofield Building, CLEVELAND, O.

### One of the Most Important Elements to be considered in a Vibrating Screen is the Feeder

The Reliable Feeding Devices found only on the Jeffrey Vibrating Screen not only distribute the material evenly across the face of the screen, but can be quickly adjusted (even while machine is running) to regulate the feed for any desired amount.

The operating angle of the screening surface can be varied to exactly suit the requirements of material to be screened, insuring an exact separation with no fines carried over into the tailings.

Bulletin 69-D gives full particulars, including prices and detailed information.

WRITE FOR FREE COPY



Front view of Screen with Doors removed to show screening action.

**Jeffrey Mfg. Company**  
COLUMBUS, OHIO

New York  
Chicago

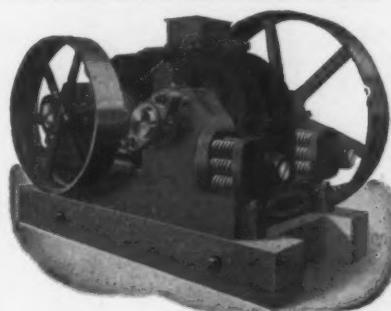
Pittsburgh  
Charleston, W. Va.

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## Eventually You Must Use Crushing Rolls



To Produce Fine Crushed Stone for Top Dressing, Concrete Work and Fertilizer

We fit them with rolled, Chrome or Manganese steel shells whichever is desired.

Sizes 12"x12" to 54"x24" with or without automatic adjustment.

The long life of these machines together with the small amount of power and small cost for repairs makes them an economical machine to use.

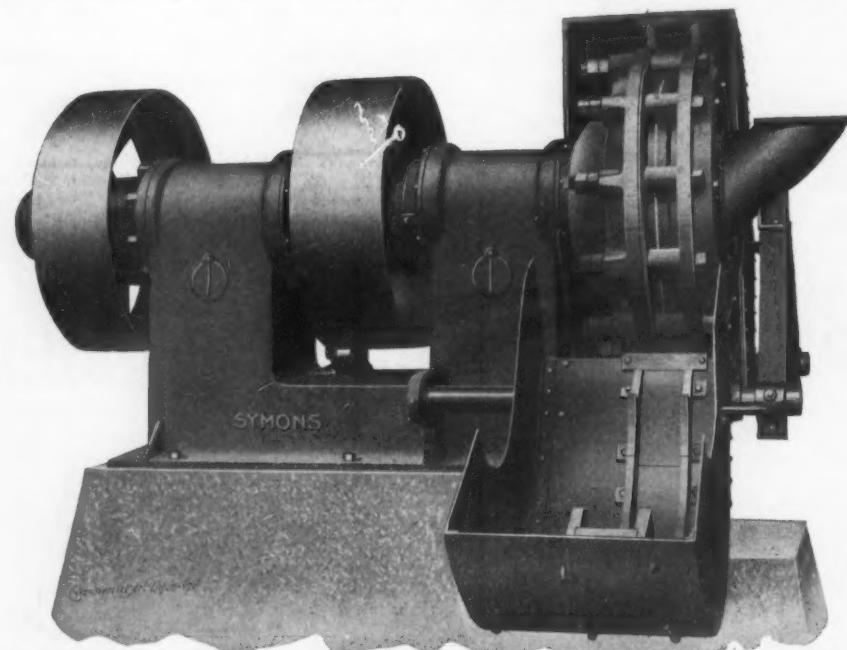
**WE BUILD JAW AND GYRATORY CRUSHERS**

**CHALMERS & WILLIAMS**  
INCORPORATED

General Office, Chicago Heights, Ill.

New York Office, Singer Bldg.

# What Will The SYMONS DISC CRUSHERS Do?



**SYMONS BROTHERS COMPANY**

The Following Tabulated Answer is  
Conservative

Size of Crusher.....	48-in.	36-in.	24-in.	18-in.	13-in.
Opening in Elliptical Feed Spout.....	11½x17	9½x14½	7x10½	4½x7	4x4½
Opening Between Dies at Feed Spout .....	8-in.	5-in.	3½-in.	2½-in.	1½-in.
Min. Exit Opening for best results ...	1-in.	¾-in.	½-in.	¾-in.	½-in.
	Size Tons of Per Ring Hour	Size Tons of Per Ring Hour	Size Tons of Per Ring Hour	Size Tons of Per Ring Hour	Size Tons of Per Ring Hour
Cap. in Tons per hr..	1 = 45- 60 1½ = 60- 75 2 = 75- 80 2½ = 85-100	1 = 25-30 1 = 30-40 1½ = 40-50 2 = 50-60	1 = 12-15 1 = 18-20 1 = 20-25 1½ = 25-30	1 = 5- 8 1 = 8-10 1 = 10-12 1 = 12-15	1 = 4- 5 1 = 5- 7 1 = 6- 8 1 = 8-10

We Send Disc Crushers to All Parts of the Country On Trial.

**THEY MAKE GOOD**

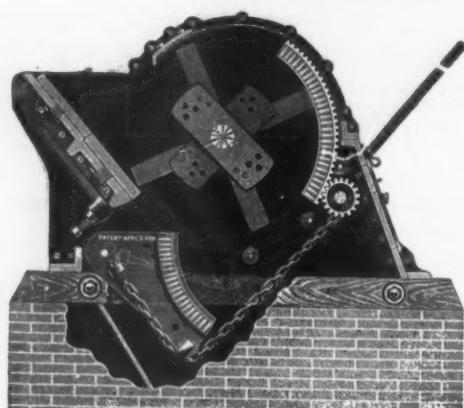
ADDRESS

Majestic Building  
MILWAUKEE, WIS.

## WILLIAMS JUMBO CRUSHER

Will take 12 to 14 in. cubes Limestone or Shale and reduce to 2 inch,—1½ inch,—1 inch,—¾ inch and finer.  
1 No. 6 Recently Replaced 3 No. 5 Gyratories.

"MANUFACTURED AND LICENSED UNDER 87 SEPARATE AND DISTINCT PATENTS."



WITH DUMP CAGE OPEN.

WORKS: 2701 N. Broadway, ST. LOUIS  
SAN FRANCISCO, 347 Monadnock Bl'dg.

Iola, Kansas, December 6th, 1910

Williams Patent Crusher & Pulverizer Co., St. Louis, Mo.  
Gentlemen: Your No. 6 Jumbo Crusher recently installed by us is handling about 100 tons per hour of crushed limestone from a No. 8 Gyratory Crusher, the largest pieces of which will average six inch cubes.

The capacity of our elevator is 115 tons per hour and the machine easily overloads the elevator. We are now installing an elevator of double the CAPACITY FOR THIS CRUSHER. Your guarantee was fifty tons per hour from this machine.

Your crusher reduces all of our material to three-quarter inches and finer, and the majority to one-quarter inch.

We have been operating the machine about eight weeks and find same most satisfactory.  
Yours very truly, THE IOLA PORTLAND CEMENT CO., F. L. WOODS, Supt.

### MADE IN 8 SIZES—ALL PARTS ADJUSTABLE

Ask Iola Portland Cement Co., Texas Portland Cement Co., Southwestern Portland Cement Co.—or us. Write for Bulletin 12.

### WE ALSO MAKE LIMESTONE GRINDERS

## THE WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY

OLD COLONY BL'DG. ————— CHICAGO



Let us send you a book that tells you all about **Bay State Brick and Cement Coating Protection** for concrete, cement or stucco.

This coating has been an unqualified success for twelve years, is an absolute protection against dampness and moisture and has been endorsed by the National Board of Fire Underwriters as a fire retarder.

Many of the largest textile mills, armories, breweries, as well as private houses, have used it as an exterior or interior coating with great success.

*Be sure and write today for our booklet No. 16 which shows you the colors in which we make it.*

### WADSWORTH, HOWLAND & CO., Inc.

Paint and Varnish Makers and Lead Corroders,  
82-84 Washington St.,  
Boston, Mass.



Magnet wire and insulated wires for all purposes, including our Crown and Globe wires for incandescent lighting, Reliance weatherproof wires, slow burning wire, lamp cord, office and annunciator wire, cord for portables, packing house cord, canvasite cord, brewery cord, theatre or stage cables, border light cables, deck cables, elevator lighting cables, elevator control cables, mining machine cables, automobile primary and secondary wires, rubber insulated and paper insulated, lead encased cables for underground service, submarine wires and cables.

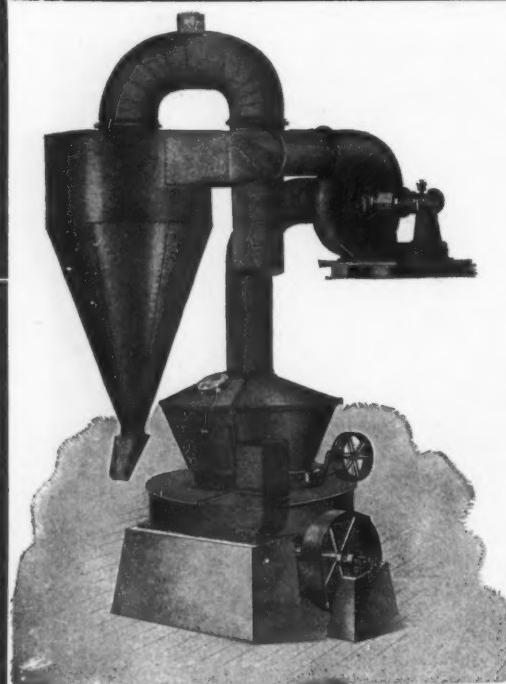
#### We Make

American Wire Rope	Barbed Wire
Aeroplane Wire and Strand	Woven Wire Fencing
Piano Wire	Fence Gates
Mattress Wire	Steel Fence Posts
Weaving Wire	Concrete Reinforcement
Broom Wire	Springs
Fence Wire	Sulphate of Iron
Flat Wire	Poultry Netting
Flat Cold Rolled Steel	Wire Rods
Wire Hoops	Juniata Horse Shoes
Electrical Wires and Cables	and Calks
Rail Bonds	Shafting Cold Drawn Steel
Bale Ties, Tacks, Nails, Staples, Spikes	Wire of Every Description

We have separate catalog for each of these. Gladly furnished upon application.

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NEW YORK	30 Church Street	DETROIT	511 Cass Avenue
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## Antiquated Grinding Mills Eat Up Your Profits

A grinding mill unsuited to the particular needs of an industry is wasteful of time and labor and fails to produce a ground product of the fineness required for a highly efficient workable product.

It often entails needless investment in elevating, conveying and handling machinery which consume power and take-up space.

Before adopting any grinding system consult us about the suitableness for your needs of the

## RAYMOND PULVERIZING Air-Separating SYSTEM

This system performs 3 distinct functions. Besides grinding finer than any other method, it separates the ground material as fast as it reaches the required mesh, taking it from the mill while the grinders work and elevating or conveying it to any point desired.

About  $\frac{1}{2}$  the power and far less expense in upkeep is required to do this than is possible with complicated machinery.

No bolters, reels or screens are used, thus eliminating their initial cost and their expensive maintenance charges. No waste or tailings are possible as all the powder is kept within the system. None escapes to choke the workmen. The grinding room is as free from dust as the office.

Every plant owner, manager, superintendent and engineer who becomes familiar with the Raymond System cannot fail to realize its great advantages over all other known methods.

Send for our Book I, which explains in detail what our system is and how and where it may be used. Read this book and you may find the way to divert some items from the expense account into the dividend account. We design special machinery and methods for Pulverizing, Grinding, Separating and Conveying all powdered products. We manufacture Automatic Pulverizers, Roller Mills, Vacuum Air-Separators, Crushers, Special Exhaust Fans and Dust Collectors.

**Raymond Bros. Impact Pulverizer Company**  
517 Laflin Street, CHICAGO, ILL.

PLEASE CUT THIS OUT

**REMINDER**  
To write Raymond Bros. Impact Pulverizer Company, 517 Laflin Street, Chicago, for their Book on Modern Methods of Pulverization and Air Separation.

(17)



There's one "best" in every line, but that is not always best for everyone concerned. In the building trades

### Ricketson's Mineral COLORS

are acknowledged to be the best choice for everybody. Best for the architect because purest. Best for the contractor because they go farther. Best for the owner because they never change their color.

For Mortar, Brick, Cement, Stone, Etc.  
Red, Brown, Buff, Purple and Black

RICKETSON MINERAL PAINT WORKS

MILWAUKEE, WIS.

## HIGH GRADE FIRE BRICK

For Cement Works, Lime Kilns, Cupolas, Steel and Iron Works of every description

LOUISVILLE FIRE BRICK WORKS, Highland Park, Ky., P.O.  
Incorporated.

There is a Space—

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Write to day for  
Special Price

ROCK PRODUCTS  
537 S. Dearborn St., Chicago, Ill.

Tell 'em you saw it in ROCK PRODUCTS



Twelve Stories of Solid Comfort in  
The Heart of New York

## Hotel York Strictly Fireproof

36th Street Corner 7th Avenue  
2 minutes walk from New Penn. R. R.  
Station and 10 minutes from Grand Central Terminal, one short block to Broadway.

Accommodations better than rates indicate—Desirable Rooms \$1.50 and \$2.00  
bath privilege—Desirable Rooms \$2.00 to \$4.00 with private bath.

Write for Pocket Map of New York City.

H. G. Williams, Manager.



## "STAG" BRAND Manganese Steel Castings

Edgar Allen American Manganese Steel Co.  
Chicago, Illinois  
New Castle, Delaware

Rock Products' Advertisers  
Are All Satisfied

# Breaker Shafts

## **Crystallization**

is the cause of the breaking of most crusher shafts and is the result of severe, continued and frequent shocks.

To prevent this trouble we have developed special "anti-fatigue" steel shafts which are oil tempered and heat treated.

These shafts are forged in our own shops which contain special equipment for the purpose, including one of the most powerful hydraulic presses ever built, the use of which assures a homogeneous forging.

These shafts are slow to show crystallization under the severest crushing conditions and will outlast any shaft ever before manufactured.

For  
**TRAP ROCK**      **GRANITE**      **IRON ORE**  
**ALLIS-CHALMERS CO.**  
**MILWAUKEE**      -      -      **WISCONSIN**



# AUSTIN GYRATORY CRUSHER

The World's leading rock  
and ore breaker.

The only self lubricating Crusher.

The only crusher having double countershaft bearing. Simple construction, corrosion proof.

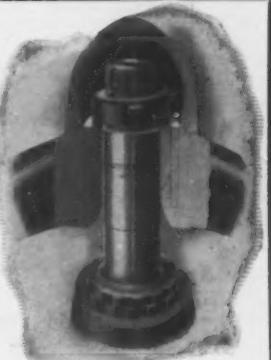
rect design.  
Thousands in use.  
Plans and specifications  
furnished for any sized plant.  
Send for Catalogue No. 17.

All experienced users recognize that the efficiency and durability of the suspension bearing as applied to Gyratory Crushers, depends upon locating the bearing at the point of least gyration or movement of the main shaft.

A perfect suspension can be made only by locating the bearing at the point where there is no movement of the shaft. That being a mechanical impossibility it follows that superiority is obtained in fixing the bearing at the point of least vibration of the shaft.

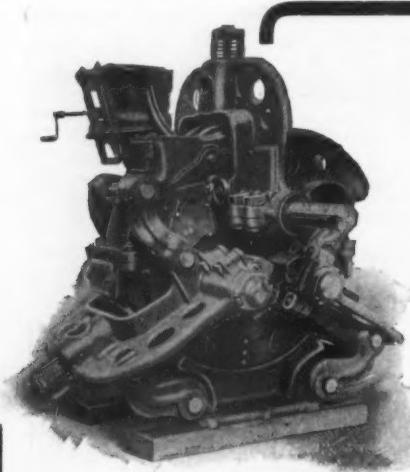
As the accompanying cut will show, the movement of the shaft at the point of suspension in the Austin Crusher is reduced to the minimum and practically eliminated. Consequently the highest possible degree of efficiency and durability is obtained.

**Austin Manufacturing Co., Chicago**



New York City Office  
**1682 FULTON BUILDING**  
Hudson Terminal

Tell 'em you saw it in **ROCK PRODUCTS**



# MAXECON

Means MAXimum of ECONomy

Years of experience with the assistance of our hundreds of customers has found THE SOLUTION OF GRINDING HARD MATERIALS. The MAXECON PULVERIZER combines highest EFFICIENCY, greatest DURABILITY and assured RELIABILITY. Uses the LEAST HORSE POWER per capacity. Embodies the features of our Kent Mill with improvements that make it MAXECON.

**WE DO NOT CLAIM ALL of the CREDIT  
for this achievement**

We have enjoyed the valuable suggestions of the engineers of the Universal Portland Cement Co. (U. S. Steel Corp.), Sandusky P. C. Co., Chicago Portland C. Co., Marquette Cement Mfg. Co., Western P. C. Co., Cowham Engineering Co., Ironton P. C. Co., Alpena P. C. Co., Castalia P. C. Co., Pennsylvania P. C. Co., any many other patrons.

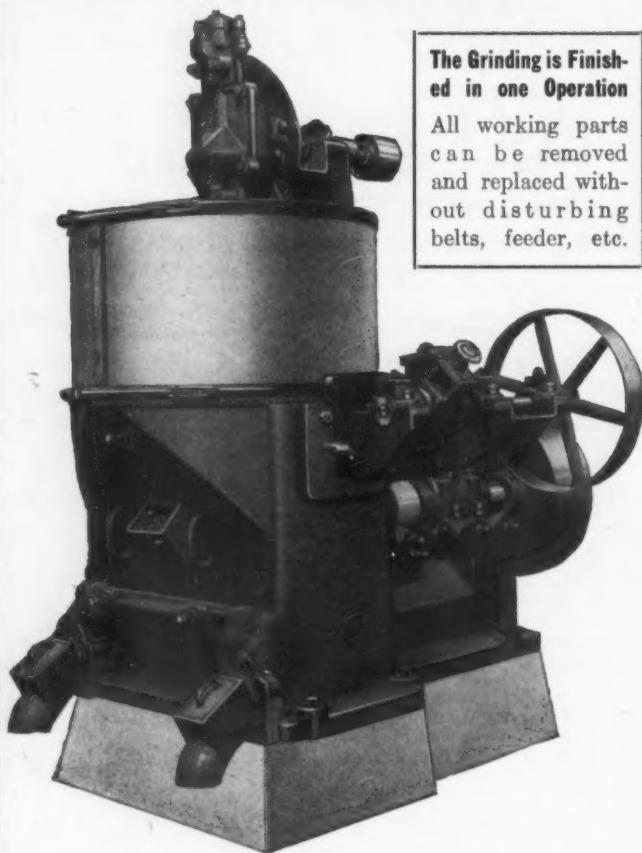
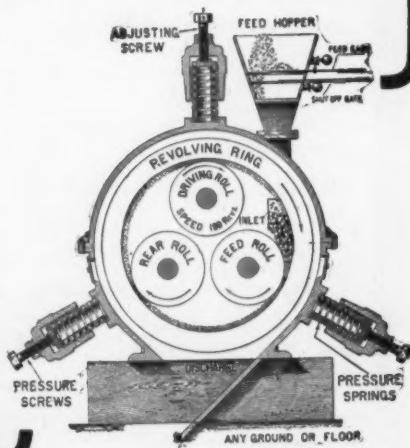
## THE RING WOBBLES

The FREE WOBBLING POUNDING RING instantly and automatically ADAPTS its position to the variations of work.

Its GRINDING ACTION is DIFFERENT than any other; besides the STRAIGHT rolling action of the rolls, the SIDE to SIDE motion of the ring makes the material subject to TWO crushing forces and DOUBLE OUTPUT results.

**KENT MILL CO.**

10 RAPELYEA ST., BOROUGH OF BROOKLYN, N. Y. CITY  
LONDON, W. C., 31 HIGH HOLBORN  
CHARLOTTENBURG 5, WINDSCHEID STRASSE 31, BERLIN



The Grinding is Finished in one Operation

All working parts can be removed and replaced without disturbing belts, feeder, etc.

## BONNOT PULVERIZER

**Grinds and Screens Limestone,  
Raw Lime and Hydrated Lime**

**Does it at One Operation. Gives You Any Desired Fineness**

GRINDING LIME IS LARGELY A SCREENING PROPOSITION. THE BONNOT PULVERIZER HAS THE LARGEST SCREENING SURFACE AND CONSEQUENTLY THE GREATEST CAPACITY.

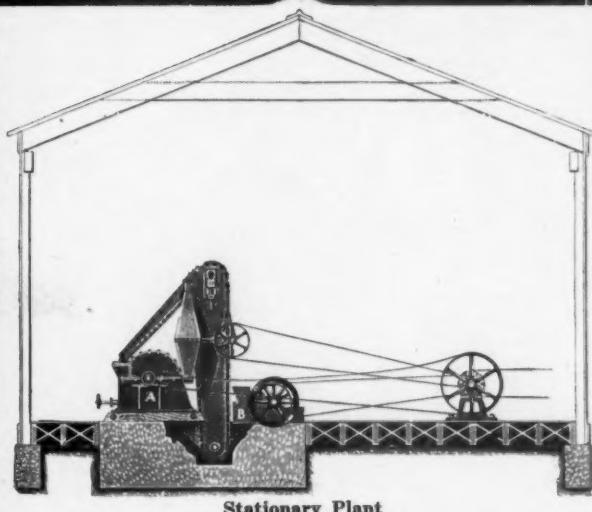
NO OTHER MACHINE LIKE IT IN THE ACCESSIBILITY OF SCREEN AND GRINDING PARTS.

No. 4 Catalog Explains These Advantages

**THE BONNOT COMPANY**

909 N. Y. Life Bldg.  
KANSAS CITY, MO.

**CANTON, OHIO**



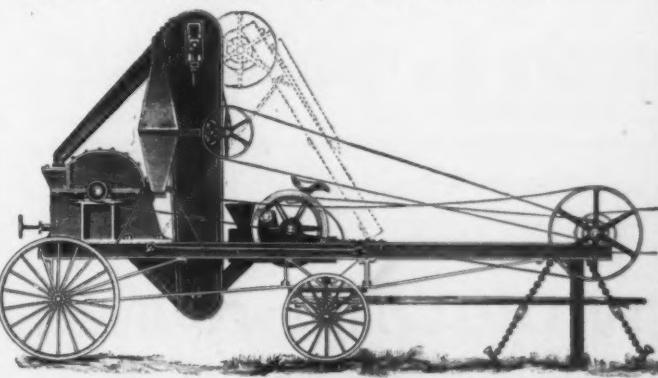
Stationary Plant

# Get Into the Game

**GRIND YOUR LIMESTONE SCREENINGS  
AND MAKE LIMESTONE FERTILIZER**

What Is Now a Dead Loss to Some Quarrymen  
Can Be Turned Into Good Profits

WE FURNISH COMPLETE PLANTS OF ANY CAPACITY DESIRED  
Manufactured and Licensed under 87 Separate and Distinct Patents



Portable Plant

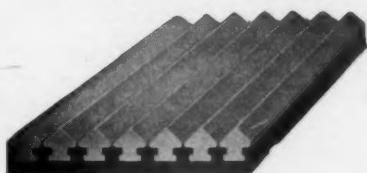
We now have over 30 plants in operation

BULLETIN NO. 4 EXPLAINS THE  
PROPOSITION

**The Williams Pat. Crusher &  
Pulv. Co.**

ST. LOUI 2705 N. Broadway  
CHICAGO: Old Colony Bldg.  
SAN FRANCISCO: 428 Monadnock Bldg.

**A Tempered Steel Jaw Plate  
for Blake Type Crushers**



Canda Tempered Steel Crusher Jaw Plate

Patented March 31, 1908

**CHROME STEEL WORKS**  
CHROME, N.J., U.S.A.  
Formerly of Brooklyn, N.Y.

The Canda Tempered Steel Jaw Plate for Blake Crushers is composed of Forged and Rolled Chrome Steel Bars, cast-welded and also mechanically interlocked into a backing of tough steel—and the wearing face is tempered to extreme hardness. We are equipped to supply both corrugated and smooth face plates for all sizes and makes of Blake Crushers. The Canda method of cast-welding forged and tempered steel bars into a mild and tough Steel Backing, is adapted also to the construction of Cone Heads for Gyratory Crushers, Segments for Corrugated Rolls, etc., etc. Our products in this line are sold with our special guarantee that they will wear longer, give better satisfaction and, at our price, prove more economical than any others now on the market.

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Represented by

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ROCK  
CRUSHER**

USED IN ALL PARTS OF THE WORLD—LARGE RECEIVING CAPACITY—SPECIALY DESIGNED AND CONSTRUCTED FOR HARDEST KIND OF WORK

**COMPLETE CRUSHING PLANTS OUR SPECIALTY**

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Nuttall Cut Gears reduce vibration to the minimum, assuring long machine life and a better product.

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# Lime for Chemical Use

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Mr. Dealer, do you get their business?

You could if you had high calcium lime to sell.

**Mitchell Lime Is Just What They Want**  
because it is  
**The Strongest White Lime On the Market**

We can supply you in any quantity, carloads or less.

ASK US FOR A PRICE

**MITCHELL LIME COMPANY**

WORKS:  
Mitchell, Ind.

528 Peoples Gas Bldg.,  
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The  
**National  
Lime &  
Stone Co.**  
CAREY, OHIO

## Waste Means Loss of Money

WASTE means that you are reaching down into your pocket and meeting leaks that should not exist. For more than seven years we have been expounding the merits of

### Monarch Hydrated Lime

As a result, thousands of contractors will use no other. They have learned by experience that it more closely approaches perfection than any other lime, because there is absolutely no waste.

*They know that it requires no screening.*

That it takes more sand; gauges with one-third less plaster and spreads farther and easier than lump lime.

These are features that are causing thousands to use *Monarch Hydrated Lime*. Are you one of this number?

Every Arrow points to a State or Province where Dealers handle  
**THE PERFECT FINISHING LIME.**



## Tiger Brand Hydrated Lime

stands for quality. It means that every job where it is used will give satisfaction and, therefore, more sales for the dealer who handles it. It insures permanent customers.

*Write for Prices.*

**The Kelley Island Lime & Transport Co.**  
CLEVELAND, OHIO

## The Curry Bag Tyer

NO LONGER AN EXPERIMENT — A PRACTICAL SUCCESS

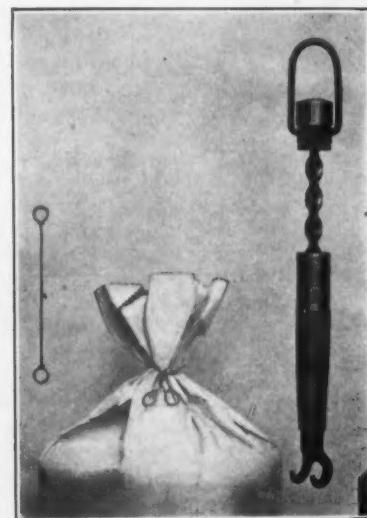
### The PROOF

102,500,000 bags tied last year.

2,500 tools in service.

Over 700 active customers including 75 Cement plants, 60 Lime and Plaster mills, 100 Largest reinforcing contractors.

Necessitating a manufacturing capacity in the United States 2,000,000 ties a day, and a plant in Germany manufacturing 320,000 ties a day.



Suitable for any bag. Binds the intersection of reinforcing rods. Economical, Practical and Secure.

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We have begun suit against a maker and seller of a similar tool and are prepared to enforce our rights under our patents against all infringements.

# The Ohio and Western Lime Company

WORKS AT  
Huntington, Indiana  
Marion, O.  
Gibsonburg, Ohio  
Fostoria, Ohio  
Sugar Ridge, Ohio  
Tiffin, Ohio  
Genoa, O.  
Limestone, Ohio  
Lime City, Ohio  
Portage, Ohio  
Luckey, Ohio  
Bedford, Ind.

MANUFACTURERS OF AND WHOLESALE DEALERS IN

Ohio and Indiana White Finishing Lime, Ground  
Lime, Lump Lime, Fertilizer Lime, Hydrate  
Lime, Cement, Plaster, Hair, Etc., Etc.

Capacity  
**8000 Barrels**  
Per Day

MAIN OFFICE: Huntington, Ind. Branch Office: Marion, Ohio.



## BANNER HYDRATE LIME

*That Made Gibsonburg, Ohio, FAMOUS*

MANUFACTURED BY THE

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PITTSBURG .. PENNSYLVANIA

## CROWN HYDRATE

HIGH CALCIUM HYDRATED LIME

At present prices you can waterproof, improve the color and strengthen the texture of all cement construction and actually **save money** because the Hydrate **replaces** the same amount of cement (15 to 25%).

Kritzer Vacuum Process

**MARBLEHEAD LIME COMPANY**  
KANSAS CITY CHICAGO

## DEALERS ATTENTION

We manufacture the STRONGEST LIME IN OHIO and can ship promptly in straight or mixed cars, Lime in bulk or barreled, "Masons Hydrate" for brick work and masonry, "Clover Grower" Hydrate for improving the soil. Also from our Northern Ohio plant, in straight car lots, "Lime Flour," a pure white magnesia Hydrate for white coat, none better, Quality the best.

A dealer wanted in every city to handle our products. Write or wire for prices.

**THE SCIOTO LIME AND STONE CO., Delaware, Ohio**

# HYDRATED LIME

## Listen to this Mr. Dealer

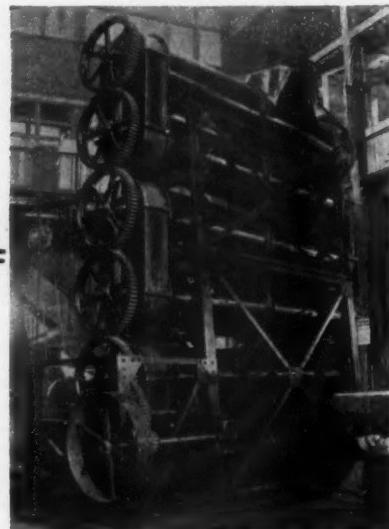
*Promoting the Sale of Hydrated Lime means this to you:*

First, it means increased profits in your business. Every concrete worker can do better work with hydrated lime, and he can do better work in less time. Tell him this. Tell him he can make more money. Tell him his work will be impervious to moisture, that his work will look better, in fact, be better. Tell them hydrated lime can be used for any purpose where other lime is used, can be used better, and is useful in many other ways. Live retailers everywhere are handling hydrated lime and educating their trade in the economy of its use. Hydrated lime is an ideal product to handle and you want to sell more of it. You can do this if you tell your trade what can be done with it.

*Ask any up-to-date lime man what process and machinery for the making of hydrated lime is the best and he will say*

**The KRITZER WAY is the Right Way**

**The Kritzer Company**  
115 Adams Street :: Chicago, Ill.



KRITZER CONTINUOUS PROCESS

# WELLER-MADE



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The one certain way to handle your materials right is to install WELLER-Made Elevating and Conveying machinery, which is rapidly displacing all old style methods.

Weller equipment saves time—it saves labor—it saves trouble—and allows more space for working purposes. Our line comprises everything for handling stone, ores, rock, sand, cement, etc.

Our engineering department will gladly help you in the selection of the most desirable machinery for your requirements. Send for a copy of our No. 20 catalog.

### Elevator Buckets,

Spiral Conveyors, Portable Elevators, Chain and Belt Conveyors, Dump Cars, Screens, Etc., are a few of our specialties.



Cold Rolled Sectional Flight Spiral Conveyor

**WELLER MFG. CO. : : : CHICAGO**

## EXPERIMENTAL HYDRATE PLANTS



Clyde Hydrator with Hood  
"The common sense way".

Are expensive to install and operate and very questionable as to their ability to produce a marketable product.

CLYDE HYDRATORS have been in successful operation seven years, over 80 now in operation here and abroad. Their ability to produce a marketable product has raised the out-put of one firm from 40 to 450 tons per day, and still growing.

A CLYDE HYDRATOR will give greater capacity, at less operating cost per ton, will produce a more uniform product, more thoroughly hydrated, than any other hydrator on the market, AND, the FIRST COST of a CLYDE PROCESS HYDRATING PLANT is 35% less than any other process of equal capacity. Let me prove this true. Don't decide on hydrating equipment until you know the FACTS. Ask me for a copy of the treatise on Hydrated Lime written by a recognized authority for the American Institute of Chemical Engineers. Comparative quotations gladly furnished on plants or machines of the capacity you desire.

**H. MISCELLANEOUS, 318 St. Croix Ave., Duluth, Minn.**

Patentee and Sole Manufacturer of Clyde Hydrators

### THE LATEST IN BUILDERS' DERRICKS.

**SASGEN**  
**SILO**  
**DERRICK**  
Boom 9 ft.,  
swing circle  
of 18 ft., has  
trolley to  
move load to  
proper place  
for pouring  
which does  
away with  
carrying  
bucket.  
Boom  
collapsible  
for removal or shipment.  
Derrick taken in 3 parts in  
2 minutes.  
Price, complete with cable and  
block

**\$55.00**



### THE STANDARD CIRCLE SWING with gear-ed winch.

Capacity 2500 lbs.  
Equipped with 150 ft.  
cable, block fasteners,  
load and boom brakes.  
**Price \$45.00**  
Rigged for hand and  
power \$3.00 extra. We  
manufacture builders  
derricks of all kinds.

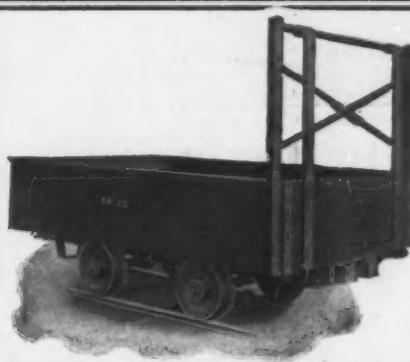
*Write for Catalog R.*  
**SASGEN BROS.**  
2053-57 Racine Ave., Chicago, Ill.

## "INDUSTRIAL"

The Quarry Cars That  
Give the Service You Want

Carefully designed and  
built to give the longest  
and most satisfactory ser-  
vice under the severest  
exactions of quarry usage.  
There is an Industrial Car  
for every purpose and each  
is the best of its kind to  
be had.

*Illustrated Catalogue  
on Request. Write*



**The Industrial Car Co.**  
Successor to THE CLEVELAND CAR CO., West Park, Ohio

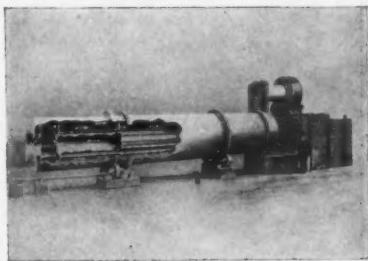
# New Home of the Bates Valve Bag Co.



WE wish to announce to our clients and friends that we are now housed at *Nos. 11-13-15-17 South Desplaines Street, Chicago*, where we have assembled our Engineering Department, Experimental Department and our General Offices, all in one building—our equipment will continue to be manufactured in the same satisfactory manner as heretofore, but with added facilities to insure its efficiency—our field force is daily becoming better organized, and we hope by dint of hard work to maintain the same foremost position that we now occupy in the Bag Filling industry.

**BATES VALVE BAG COMPANY,**

11-13-15-17 South Desplaines Street  
CHICAGO



SECTION SHOWING DIRECTION OF GASES

**The Principle  
of the  
Ruggles-Coles Double  
Shell Dryer**

is that the material being dried passes the hot gases in the opposite direction to their travel. The class "A" Ruggles-Coles Dryer is shown in section above. Two rigidly connected concentric shells capable of revolution rest on eight bearing wheels. The hot gases are drawn through the inner shell by a fan and then pass back over the material, advancing to discharge end by reason of the inclination and revolution of machine. We offer six regular classes of dryers for drying organic and inorganic materials of almost every description. For certain substances special machines are built to order.

SEND FOR BOOKLET "WHAT WE DRY"

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McCormick Building  
CHICAGO

(37-87)

50 Church Street  
NEW YORK



## Red Cross Dynamite

20 TO 60 PER CENT STRENGTH

**Adaptable Productive Economical**

We offer to quarry owners various "strengths" of Red Cross Dynamite to permit the use of an explosive best suited to blasting conditions in their quarries. The right selection assures a bigger production at a lower cost of explosives.

It pays to make a careful choice of explosives and the result is quickly apparent on cost sheets.

"Du Pont Explosives for Quarries" treats of the selection and application of our explosives to quarry work. A book containing valuable and helpful information for quarrymen.

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Powder Company**

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AETNA

40 per cent Aetna Gelatin is the best explosive for breaking hard rock in wet or dry work, because it contains within a given space the greatest amount of rending power at the right speed for rock breaking. Waterproof, dense, uniform.

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Tell 'em you saw it in ROCK PRODUCTS

**DIRECT HEAT**

# DRYERS

**FOR**

**BANK SAND  
GLASS SAND  
ROCK, CLAY  
COAL, ETC.**

All Mineral, Animal and Vegetable Matter.

We have equipped the largest plants in existence and our dryers are operating in all parts of the world. Write for list of installations and catalogue S. C.

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68 William Street, NEW YORK CITY

## FOR THE USER'S SATISFACTION

We could probably build as "cheap" a lime kiln as any one in the business. But that is not the policy which has made the reputation of our product.

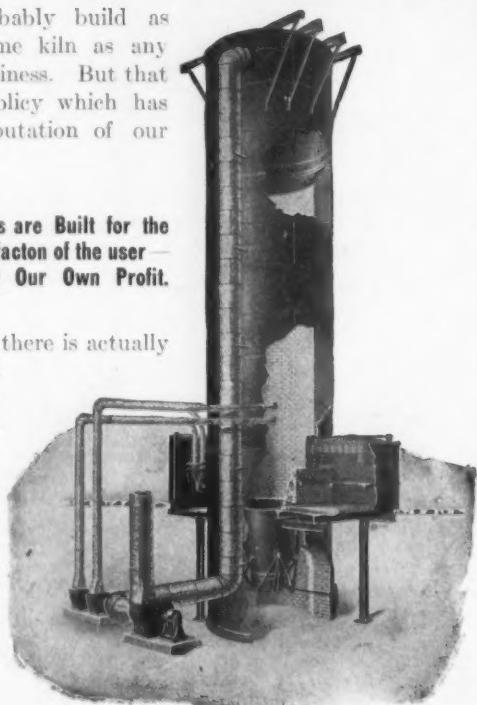
Doherty Lime Kilns are Built for the Permanent Satisfaction of the user—Not Merely for Our Own Profit.

We believe that there is actually More Service in Doherty Lime Kilns than in any others.

Bulletin No. 4 is a Text Book on Lime Making Economy.

**Improved Equipment Co.**  
Combustion Engineers

EXECUTIVE AND SALES OFFICES  
60 Wall Street, NEW YORK



Tell 'em you saw it in ROCK PRODUCTS



## MEDUSA

WATERPROOFED WHITE  
PORTLAND CEMENT

TO THE EXTENT OF OVER 5,000 BARRELS IS BEING USED IN THE NEW WOOLWORTH BUILDING, NEW YORK CITY, THE HIGHEST BUILDING IN THE WORLD, HERE ILLUSTRATED

The First True White Portland Cement Ever Manufactured

PERFECTLY WHITE IN COLOR AND STAINLESS

THE BRAND THE U. S. GOVERNMENT HAS USED  
IN FIFTY BUILDINGS IN THE PAST TWO YEARS

FOR EXTERIOR AS WELL AS INTERIOR WORK

Write for free booklets and samples of

**MEDUSA WHITE PORTLAND CEMENT**

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**MEDUSA WATERPROOFED CEMENTS**

(GRAY AND WHITE)

**SANDUSKY PORTLAND CEMENT CO.**

SANDUSKY, OHIO



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For Mechanically Drying Everything.

The F. D. Cummer, & Son Co., Cleveland, O.

## WORRELL'S ROTARY DRIERS

FOR SAND, CLAY, ROCK PRODUCTS AND OTHER GRANULAR MATERIALS.



Excellent Results, Moderate in Cost and Expense of Operation

In sending for prices and printed matter describe your material fully, giving its percentage of moisture, required hourly capacity, etc.

**S. E. WORRELL**  
HANNIBAL, MO.

(First Manufacturer of Rotary Fire Drying Machines in the U. S.)

## Farnam "Cheshire" Lime Co.

OF CHESHIRE, MASS.

MANUFACTURERS OF THE

## Celebrated Cheshire "Finishing" Lime

Well known throughout New York and the Eastern States as the finest finishing lime manufactured. The special feature of this lime is its quick and even slacking, thus preventing any cracking or checking when put on the wall. It is the best lime used in the country today for all

## HIGH GRADE FINISHING WORK

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# ROCK PRODUCTS

ESTABLISHED IN LOUISVILLE, KY., 1902.  
DEVOTED TO CONCRETE AND MANUFACTURED BUILDING MATERIALS.

Volume XII.

CHICAGO, AUGUST 22, 1912.

Number 2

Publication day, 22nd of each month.

THE FRANCIS PUBLISHING COMPANY

EDGAR H. DEFEBAUGH, Pres.

Seventh Floor, Ellsworth Bldg., 537 South Dearborn St., Chicago, Ill., U. S. A.  
Telephone Harrison 8086, 8087 and 8088.

## EDITORS:

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MANAGING EDITOR.  
CHARLES D. WARNER.  
BURDIS ANDERSON, Manager.

Communications on subjects of interest to any branch of the industry are solicited and will be paid for if available.

Every reader is invited to make the office of Rock Products his headquarters while in Chicago. Editorial and advertising copy should reach this office at least five days preceding publication date.

## TERMS OF ANNUAL SUBSCRIPTION.

In the United States and Possessions and Mexico.....	\$1.00
In the Dominion of Canada and all Countries in the Postal Union.....	1.50
Subscriptions are payable in advance, and in default of written orders to the contrary, are continued at our option.	
Advertising rates furnished on application.	

Entered as second-class matter July 2, 1907, at the Postoffice at Chicago, Illinois, under Act of March 3, 1879.

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When the farmer is looking out over his growing crops and figuring up mentally what they are going to bring him later on, is the psychological time to talk new barn or new house to him.

Do not forget that ready roofing. Push it for all you are worth. There is money in it, and the manufacturers are always ready to help you out with advertising matter and suggestions.

Have nerve. You only have to watch the bank clearings and the railroad reports to see the sure signs of the trend of things. It is time to replenish stocks for fall trade now, and those who do will get the advantage of prices now prevailing.

Just because it's warm, just because the summer is here, just because somebody else is doing little, is no reason why you should sit back in your chair and wait for business. Let the other fellow do that. In the glad summer time is the season to hustle, just because.

Two cement shows will be held next winter under the auspices of the Cement Products Exhibition Company, one at Chicago and the other at Pittsburgh. Pittsburgh will be a new field for the show and the exhibition there should meet with the most pronounced success. Both shows deserve the loyal support of every man and company identified with the industry or any of its allied interests. The diagrams of floor space at both shows will be out soon and the wise will make reservations early.

When you sell a man a bill of goods, remember that it is not the last bill of materials he will want to buy. Remember, too, that he has friends and relatives who also may want to buy in the future. Remember that he will do some talking about the materials he got from you. Remember you can make each customer either the best advertising agent you can have, or you can make him an enemy. Better treat him accordingly. We heard a dealer say to a customer who inquired about lime the other day: "Yes, I have some, but it is not what you want, and I will not sell it to you, John. It got exposed to the weather and injured. Wait a few days and I will have some that's good." John will wait, and what is more, this dealer will never fail so long as there are people in that town who buy building materials. They never have been deceived by this dealer, and they know what they buy from him is always up to specifications.

This life is a continual battle, and the man who isn't in it to fight generally falls in the ditch and has mud thrown on him.

Doing one's level best every day brings a whole lot of comfort and satisfaction. People who only half try just exist, they don't really live.

A man who has for many years been identified with poultry business, prints at the top of his letter heads, "It is better to begin with a hundred hens and find out how than to begin with a thousand and make a sure failure." Good advice to follow in establishing any business.

The man who loses money on a fake race or a "skin" game of any kind, generally is an individual who either does not read the papers or does so in a very careless manner. The wisest thing to do under such circumstances is to charge the amount to experience and to keep awfully quiet that the public may not "get on."

General business has not been much disturbed by the developments of the presidential campaign. Some manufacturers are holding back in order to learn what change, if any, will be made in the tariff and if the anti-trust law is to be amended. This influence, however, is extremely limited, and it may be said that, taking conditions as a whole, there is little reason to fear real unsettlement to general trade.

## THE ROAD CONGRESS.

The coming American Road Congress, to be held at Atlantic City September 30 to October 5, deserves the indorsement of every patriotic American. The entire movement is along the line of better conditions in the rural communities. ROCK PRODUCTS was the original advocate among trade publications on behalf of good roads, particularly the concrete road, and since we commenced this campaign we have noted with pleasure that a number of our contemporaries have swung into line. Concrete roads deserve all the promotion that the technical press can give them. At the American Road Congress the concrete road will come in for its full share of advocacy and honors, as Logan Waller Page, head of the congress, is firmly committed to the concrete roadway as the best that can be constructed.

## CAR SHORTAGE.

With the opening of the fall season, September 1, the shipments of grain, delivery of material, fruits and the general prosperity prevailing all over the country is evidence enough for any manufacturer today to know that he will have trouble to get cars, even before this paper goes to press. In looking over statistics of shipments in lumber, cement and other building materials, it shows increased shipments for June, July, and while the railroads have purchased a lot of cars this year, there is a scarcity of car material due to the unusual demands made upon lumber and steel men during the last three months, which fact has made the car builders unable to live up to specifications for delivery. There is no doubt in the mind of ROCK PRODUCTS that there is a necessity for looking over your stocks very closely, and do not wait until the fall trade is on you before filling in stocks and preparing for good business, which always comes with splendid crops which we have in this country. When you can get twelve-foot corn in Kansas where ninety days ago they thought the world had come to an end, and the results, after the railroads have ordered cars all this year, they find on the first of August that they are 10,000 shy of enough to move the crops from a point like Minneapolis, it evidences that the business world is up against a car shortage and those who anticipate their needs will not only assist the movement of material to their yards, but will help relieve the car shortage situation, which perhaps will be more serious this year than it has been for several years.

## EDITORIAL CHAT

### TESTING MATERIAL CONGRESS.

The sixth congress of the International Association for Testing Materials will be held in the Engineering Societies building, 29 West Thirty-ninth street, New York, September 2-7. Admission will be restricted to members of the International Association and of the American Society, which is affiliated with it, and to duly appointed delegates from foreign countries and scientific bodies. The congress fee is \$5.00 for members and \$3.00 for ladies accompanying members.

Already a large number of delegates have been appointed and the indications promise that the occasion will bring together a larger number of people interested in the materials of construction, than has ever previously gathered.

The technical proceedings of the congress will be unusually valuable. There are about 170 foreign and about 35 American papers in the list, many of which have already been printed and distributed.

It is desired that the discussion of papers and reports be full and thorough, within the necessarily limited time of the sessions. With this in view it is urged that discussions be prepared in advance of the congress, if references, figures, and similar material are available for citation. Discussion prepared in advance and submitted in writing will have precedence over impromptu discussion.

E. S. Larned, C. E., Boston, Mass., the well known specialist in cement and concrete material, who is the acknowledged authority on sands and concrete aggregate for the New England district, as well as in the selection of cement and the preparation of concrete formulae, reports a very busy summer season in the concrete industry throughout New England. Mr. Larned's paper on sand, read before the Boston Society of Civil Engineers a few months ago, is considered a classic or standard handbook upon that subject. His office is located at about the very place where Benjamin Franklin used to make tallow dips or something of that sort, when he was a small boy, but more modernly described as 101 Milk street. Mr. Larned is one of the pioneers of cement, and his writing upon the subject of cement and cement aggregates are always well received as the work of one of our best experts.

The secretaries of the Builders' Exchanges of the United States and Canada will hold a meeting in Detroit, September 10, 11, 12, under the auspices of the Detroit Exchange. The purpose is to get together on important subjects and problems.

Our old friend Edward Frazer, of the Cubbins Lime & Cement Company, of Memphis, Tenn., tells Rock Products that Memphis is already the metropolis of the South and that at the present rate of growth, she will soon be the biggest city of the Mississippi Valley, after all the waterway projects are developed and completed.

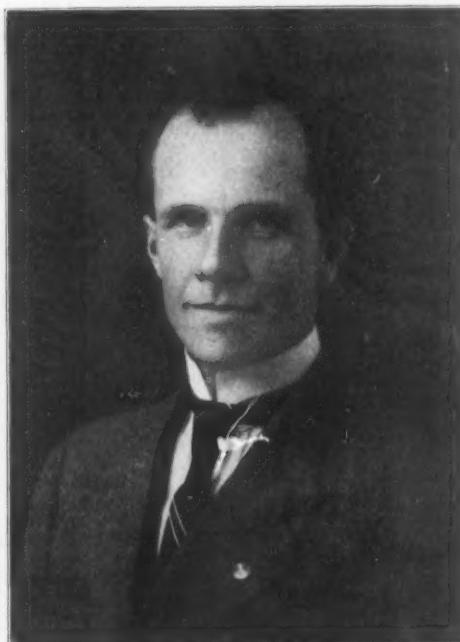
Mr. Lowe, of Butterworth & Lowe, Grand Rapids, Mich., manufacturers of calcining kettles, is visiting the Coast on a pleasure trip but keeping an eye open for business.

W. J. Ehram, of W. J. Ehram & Sons Company, of Enterprise, Kan., manufacturers of calcining equipment, is calling on the California trade.

Of the visitors in Chicago the past month was W. O. Matthews, manager of the Canada Pebble Company, Port Arthur, Ontario, Canada. Mr. Matthews' company has a nice business with the cement manufacturers and he anticipates making many trips to the States. He was accompanied by G. M. Thompson, one of their engineers, who calls on the trade. Mr. Matthews made a trip east including a visit to his home.

It will pay every cement and crushed stone man as well as road machinery men to attend the American Road Congress.

C. F. Harwood has resigned his position as sales manager of the Superior Portland Cement Company and has gone back to Pittsburgh, with Lutz & Schramm Company, in the capacity of sales manager, that being the position he held when he "butted" into the cement game, about six years ago.



J. K. LOWE.

We show on this page a portrait of J. K. Lowe, of Adrian, Mich., who is traveling salesman for the Wolverine Portland Cement Company, and is one of the best men on the road. He is a thorough-going salesman, is a firm believer in his favorite brand and has the faculty of impressing others with that same enthusiasm. Just at the present time he is mourning the burning of their mill, an account of which is given elsewhere.

We are informed by Claude E. Negley, of Indianapolis, Ind., that he has bought out the New White River Sand & Gravel Company, the Fall Creek Sand Company going out of business. They have incorporated for \$25,000 under the above name. New machinery has been installed and business is reported as first class.

Fred J. Morse, who has been handling the cement coating business of Heath & Milligan Company, Chicago, has become identified with the St. Paul Lime & Cement Company, St. Paul, Minn., dealers in building material of all kinds. His many friends will wish him success in his new field.

F. W. Soule, of Beartstown, Ill., has accepted a position with the Acme Cement Company, of Laramie, Wyo.



E. S. LARNED.

## History Makers of the Building Material Industry

Out at Iowa Falls, Iowa, the state that gave its best to the world in '61, and has been giving its best ever since, a youngster came to earth in December, 1868. Adelmer M. Bates, for such was his name, spent the early years of his life on a farm in Adams County, Wisconsin, until he was eighteen years old. His boyhood was like that of other boys; he loved the swimming hole in the summer time, and enjoyed the Fourth of July and the circus just as much as the other young chaps of his acquaintance. All the little details of farm life, and the machinery used in agriculture were a part of his early education, his everyday life. While still a youth of tender years he made a hand cradle and cradled eight acres of buckwheat with while his father was away threshing. His ambition was greater than this, for he dreamed of making a reaper that would have been a successful competitor of the great machine that now harvests the world's wheat crop, but he was too busy.

A little later, when on a farm in Minnesota, no matter what the machine was that he had to handle, he would devise some little improvement on it that would make it a better machine. He had a flax dumper working in Minnesota that was perfect in construction. From the age of fourteen he was marked with mechanical initiative, and it has always been characteristic of him that whenever he came in contact with a machine of any kind his mind worked like a searchlight and he understood every detail of the mechanism so that he has often been able to devise improvements.

Mr. Bates graduated from the Shattuck preparatory school of Faribault, Minnesota, and then something happened that changed the whole trend of his life and directed his energy along lines that possibly prevented agricultural implement world from receiving the full benefit of his genius. He became a traveling salesman, identifying himself with the Worcester Salt Company, in which corporation he was a valuable employee from 1893 until 1900. Following his usual bent of thoroughly familiarizing himself with his business and all its details, he went through the salt plant of the Worcester Company and witnessed their girls filling salt into bags with their hands and perspiring, so that perspiration dripped into the salt they were handling. He was impressed with the idea that salt should come to the consumer under more hygienic conditions, and he so expressed himself to Secretary Benedict. He made the assertion that he believed a machine could be devised to fill the bags with salt automatically. Mr. Benedict said, "You get up such a machine, and your fortune is made." In one year Mr. Bates evolved the valve idea and in 1898 the first patents were issued. Almost every bag of salt that goes to the consumer now is filled by that method.

Later on he applied this principle for a machine for filling cement bags or plaster or lime bags with material and this method is generally used. He is president of the Urschel-Bates Valve Bag Company, of Toledo, which company is also building a plant at Niagara Falls this year. He is a Mason and a member of a number of clubs but his main energy is devoted to his inventions and to his family.

It is said that he has never gotten over being made a victim of a "shark" in Minnesota in his boyhood days, when he was induced to buy for \$50.00, he had saved up, a wire fencing machine patent which never produced anything. One very close to him tells this instance at the risk of personal violence, but the experience had its result.

Mr. Bates considers the plaster business the least advanced of any business with which he has come in contact, on account of the amount of lost motion and the lack of perfect organization in the mills. His brain is teeming with a number of ideas that will in the future find expression in things that will benefit the building material trade. The Bates valve bag is used in England and every other civilized country and is one of the most valuable contributions to the construction field.

Keep your eye on A. M. Bates.

### EASY WHEN YOU'RE USED TO IT.

Our friend Izor, of concrete silo mold fame, tells this one:

An Oklahoma rancher bought a set of molds for a concrete silo and went to his neighbor, who had a wooden silo, and asked him how hard a job it would be to do the work.

"Goin' to build a silo, eh?" the neighbor said. "Well, you won't have any trouble. It's easy when you get used to it. Why, I have rebuilt mine eight times in six years."

# AMERICAN ROAD CONGRESS

Scientific management as applied to the nationwide problem of building and supervising public roads is to be the keynote of the American Road Congress to be held on the Million Dollar Pier in Atlantic City, September 30 to October 5.

The movement for better roads has taken root in every state in the Union. In every community there are men laboring for better roads. The trouble with the movement has been its lack of definite plans and methods for handling the immense problem. The plans and methods are provided at the Atlantic City congress.

It is not merely to create enthusiasm for an improved system of public roads that the congress is to be held. The enthusiasm is already at hand. The purpose of the congress, which marks the consolidation of the convention interests of the American Association for Highway Improvement, the American Automobile Association and the National Association of Machinery and Material Manufacturers, is to deal with every phase of the road subject in an orderly and scientific manner.

The people of the United States are now spending, for instance, more than \$150,000,000 a year on their roads. It is known that they are not getting a full dollar's worth of good road for every dollar expended. In other words, many millions of dollars expended for roads are actually wasted every year because of unscientific methods. Some communities do not build the right kind of roads. Some build roads designed for light traffic and expect them to withstand heavy traffic and some build expensive roads where inexpensive ones would give better satisfaction. Much of the trouble is due to the fact that there is an absence of scientific supervision of construction and maintenance. There are more than 100,000 officials of more or less importance engaged in the work of supervising the roads of the country and many of these officials are engaged for political reasons.

At the American Road Congress civil service will be thoroughly considered in its application to road management. Gen. John C. Black, Chairman of the United States Civil Service Commission, will make one of the addresses on this subject. He will explain the importance of putting the civil service, or merit test, to every man having anything to do with the supervision of the roads.

Every other phase of the road subject will be handled in the same scientific manner. The most eminent bankers will discuss methods for safeguarding a proper accounting of taxes and assuring business methods in obtaining loans or making bond issues to build good roads. There is to be a legislative section which will endeavor to point the way to needed reforms in road legislation. The president of the American Bar Association is lending his assistance in preparing the program for this particular section of the congress.

In conjunction with the congress there will be a conference of educators with a view to having highway engineering introduced in college on a scale that will meet modern requirements. Engineers experienced in road building are not plentiful and if the colleges could be induced to introduce the right kind of courses one of the greatest needs of the road movement would be supplied.

It is believed by President Taft, who is the honorary president of the American Road Congress, that better roads mean greater happiness not merely to persons living in the country districts, but to every human being in the country. Better roads mean that the farmer can haul his products at all seasons of the year, doing away with the railroad waste of pulling empty cars back and forth at certain seasons of the year, lowering the general cost of transportation, and finally resulting in a cut in the cost of living to the consumer. President Taft, who is to make an address at the opening of the congress, will point out that the improvement of public roads is the best investment that the American people can make. Of equal interest will be the address to be made by Governor Wilson of New Jersey.

The American Road Congress will be notable in that it will mark the evolution of the road movement from the theoretical to the practical stage. Each phase of the big subject will be handled by the foremost men in that particular line of endeavor. It is felt that scientific management is as applicable to a great subject of this kind as it is to the business of a great corporation. Logan Waller Page, Director of the Office of Public Roads, and active president of the congress, believes that the gathering in Atlantic City will put the road movement on such a basis that the time will not be long distant when 20 per cent of the public highways will have been improved. Mr. Page estimates that

the improvement of 20 per cent of the roads will bring this nation's road system to a high point of efficiency, almost equal to that of France.

Special attention is to be given to the use of concrete in road construction at the sessions. While concrete is virtually a new comer in the field of road making its adaptability to modern traffic conditions has gained for it recognition among highway engineers.

Logan Waller Page, Director of the United States Office of Public Roads and active President of the American Road Congress, has just announced that the exhibit of the government on the Million Dollar Pier, Atlantic City, will contain a model of a modern concrete road. There also will be models showing all other types of roads.

The highway departments of every state in the Union will be represented at the congress and some of the leading contractors of the country will be among the speakers. There will be a comparative analysis of the contract and force account systems in road construction, and papers will also be read on the relation of the contractor to the public official.

In the general discussions of these subjects many of the existing difficulties encountered by contractors in dealing with public officials will probably be straightened out. It is believed that a better understanding and more effective co-operation will be brought about as a result of the exchange of views at the sessions of the congress.

Under the contract system the work should be let to the lowest responsible bidder. Unfortunately this is not always the case. Under the force account system the highway officials of the state, county or city undertake the work themselves and engage laborers. The contractors who will appear on the program have the opportunity to show that better results are obtained by letting out the contract to a contractor, and may point out the weakness in the existing contract regulations.

In addition to the government's exhibit of a model concrete road, there will also be an exhibit showing concrete culverts and concrete bridges. The cement industry has been given a decided impetus by the statement of Surgeon-General Rupert Blue, that the use of concrete in cellars and foundations is the precaution that can be taken against plague, so that the contractors themselves will have an opportunity to show at the American Road Congress that what is true of concrete from the standpoint of sanitation, is also true from the standpoint of durability.

The American Road Congress marks the crystallization of the entire road movement, which has led to the investment of more than \$150,000,000 annually by the people of the United States. It marks the consolidation of the conventions of the American Association for Highway Improvement, the American Automobile Association and the National Association of Machinery and Material Manufacturers. The first two of these associations have previously been holding separate annual conventions and in joining their convention interests they have made it certain that the American Road Congress will be the biggest congress ever held in the United States, with the possible exception of those of a political nature.

More than half a hundred state, county and local associations are now affiliated with the American Association for Highway Improvement and all of these will participate in the big road congress. More than one thousand state, local and county automobile associations and clubs are affiliated with the American Automobile Association and all of these likewise will be represented at the congress. The American Automobile Association is arranging automobile tours from various parts of the country, all roads leading to Atlantic City, between September 30 to October.

More than eighty thousand square feet of space has been set aside on the Million Dollar Pier for the exhibits of the manufacturers of road machinery and road materials. The Association of Portland Cement Manufacturers has engaged a large space for its exhibits, while individual members of the association have contracted for large areas for their own special exhibits. Many of the states have also engaged booths, where they will have on file maps and publications of various kinds showing the location and character of their own roads.

President Taft, who is the honorary president of the American Road Congress, will be one of the principal speakers, while Governor Woodrow Wilson of New Jersey will make the address of welcome. It will be the first and probably the only time at which the respective leaders of the Republican and Democratic parties will meet on the same platform in the course of the presidential campaign.

## GOOD ROADS MEETING AT PEORIA SEPTEMBER 27.

Plans for the big fall meeting of the Illinois Highway Improvement Association are being made at Peoria where the good roads' convention will be held in the afternoon and evening of Sept. 27. The Automobile Club of Peoria is to take a leading part in the preparations, the plans being to make it a notable gathering where all the different good roads organizations will be well represented. Invitations will be sent to Governor Charles S. Deneen, members of the legislature and other leading persons who are vitally interested in the work.

Rich as the state of Illinois is in natural resources and in the fertility of her fields, yet the entire state is laboring under a great handicap simply because roads that can be used all the year round have not been provided. The consequences are that the farmers have been unable to move their produce whenever desired, and the whole state has suffered from this trade stagnation. Farmers are beginning to realize that they must get behind this great movement which is to give the state good roads and will enable them to market their produce at a minimum expense. In this work Illinois has lagged behind other states, and it's high time that definite action should be taken which will place the Prairie State abreast with the foremost of other states in highway construction.

Many will doubtless be attracted by the splendid lecture to be given in the evening at the Coliseum meeting by Warden Tynan of the Colorado State Penitentiary, showing with stereopticon slides and moving pictures some of the road building done by the Colorado convicts. Those who witnessed this entertainment in Chicago, speak of it in highest terms. Other strong speakers will be secured who will present various features of road work in Illinois.

Much interest is centered in the business session following the noon-day luncheon at which there will probably be a spirited discussion of the most feasible manner to utilize the large fund now in the state treasury derived from the automobile tax. As this is a matter involving the greater part of a million dollars it adds immensely to the practical importance of the convention. The project of completing a cross-state highway from Chicago to St. Louis will also receive careful consideration. Those interested should be present.

E. S. Bradt of DeKalb and Eugene D. Funk of Bloomington are co-operating with W. E. Hull of Peoria in giving the convention state-wide publicity. Local committees on reception and entertainment have been appointed at Peoria so as to assure all delegates and visitors a hearty welcome. The date coincides with the opening of the National Implement and Vehicle Exposition in Peoria, and immediately follows the sessions of the Illinois Bankers' Association, so that the time for the meeting appears most fortunate and auspicious for the cause of good roads in Illinois.

## CONCRETE ROADS IN ILLINOIS.

Springfield, Ill., August 21.—Aside from the actual work done in the construction of concrete roads in Illinois there have been several significant movements to show the ascendancy of this material. S. P. Clark, of Dover, Bureau county, has urged the building of at least one mile of concrete road in his township, believing that others will soon follow. As an inducement he has offered to furnish the necessary gravel free and in addition donate \$800 of the cost of each mile built. He does not specify where this highway shall be constructed, so his motive is not selfish. The Road Committee of the Illinois State Bankers' Association, which conducts a publicity bureau, is having more to say for concrete roads than in its earlier notices. In its first survey of Illinois it found that the stone roads were favored by 127 townships, gravel roads by 95 townships, and dragged roads by 124. Later it has pointed out the success of the forty miles of concrete in Wayne county, Michigan, and is urging highway commissioners to investigate it before choosing material. The initial road near Springfield by the Springfield Commercial Association in co-operation with the Illinois State Highway Commission has brought requests for more of these roads in that vicinity. John Q. Adams, of Morrisonville, was the lowest bidder on the four propositions called for on this job.

Near Mattoon in Coles county a half mile of concrete road is being built under the direction of

## ROCK PRODUCTS

AUGUST 22, 1912

Public Engineer James, of Mattoon. Cement manufacturers donated the cement, Herman A. Neal contributed the gravel and the farmers and residents of the city paid for the labor.

A subscription fund of \$1,500 has been raised in Cass county to build one-eighth of a mile of concrete road southwest of the Chandlerville city limits.

Engineer A. N. Johnson, of the Illinois State Highway Commission, has several jobs under his supervision. Two-thirds of a mile of twelve feet concrete is being laid at McLean, a mile near DeKalb, and a mile in Cook county, which was paid for by the Chicago Motor Club. Plans have been practically completed for a mile sixteen feet of concrete west of Carlinville. The Commercial Club is behind this project.

There are many cities in Illinois which are laying concrete paving which cannot help but increase its prestige in the rural districts. Edwardsville is trying out several blocks of the Dolaway paving. Lanark will invest \$15,000 in a half mile.

The incorporation of the Thornton Township Good Roads Association, of Harvey, to promote the construction and maintenance of public highways, is an innovation. Incorporators are James F. Wharton, Claude R. McDougall and Bayard T. Stevenson.

Crete township in Will county is building three miles of asphalt macadam. Momence citizens have voted \$20,000 for stone road and Allison township in Lawrence county is building five miles of hard road at a cost of \$13,000.

With the announcement of Secretary of State C. J. Doyle that the automobile license fund will reach over \$1,000,000 before a bill can be passed and become effective providing for its distribution to various counties, the future of Illinois highways is very bright.

## CONCRETE ROADS ON PACIFIC COAST.

It is evident that public road work will constitute a prominent part of improvement work in California for the next few years, and from present indications a large part of this road work will be wholly or in part of concrete. This is partly due to the recent efforts of the Association of Western Portland Cement Manufacturers, Rialto building, this city, which is commencing an extensive advertising campaign and has had men on the road boosting concrete roads to town and county officials everywhere. Many articles along this line are also being sent to coast magazines and farm papers, which are already creating a strong sentiment. An attractive emblematic design has been adopted, and will be used on literature sent out by the association and its individual members, its first public appearance being at the third annual convention of the Pacific Highway Association at the St. Francis Hotel, August 5 to 7.

## PROGRAM.

Monday—August 5.

## MORNING SESSION:

10:00 a.m. Invocation:  
Rev. Charles N. Lathrop,  
Rector Church of the Advent.

## California's Welcome:

Lieut. Gov. A. J. Wallace (Acting Governor in absence from state of Governor Hiram W. Johnson.)

## San Francisco's Welcome:

Mayor James Rolph, Jr.

Response:  
Judge J. T. Ronald, President Pacific Highway Association.

Address: A Transcontinental Highway.  
John Brisbane Walker, Director of Exploitation for the Panama Pacific Commission.

Business Session:  
Appointment of Committee on Credentials, etc.

11:30 a.m. Guests of San Francisco Chamber of Commerce.

## AFTERNOON SESSION:

2:00 p.m. Annual report of President.  
Address:  
A. B. Fletcher, California State Highway Engineer.

## Business Session:

Report of Committee on Credentials.  
Bay trip as guests of Panama Pacific Exposition Commission to inspect Exposition Grounds from the water side.

## EVENING SESSION.

8:00 p.m. Presentation of first to Mexico medal.  
Story of the first to Hazelton run, with slide views.

Tuesday—August 6.

## MORNING SESSION:

10:00 a.m. Address:  
Hon. James N. Gillett, former Governor of California.

Address: Pacific Highway as a Pacific Coast Asset (deductions from personal experience).

J. A. Marsh, President Motor Car Dealers' Association of San Francisco.

## AFTERNOON SESSION:

2:00 p.m. Business session, Committee Reports.  
Address: W. J. Kerr of Westminster, President

Canadian Highway Association.  
Address: Frank L. Brown, Director Panama-Pacific Exposition Commission, representing the Automobile Club of California.

4:00 p.m. Tour of Panama Pacific Exposition Grounds and review of United States Troops at Presidio, as joint guests of the Panama-Pacific Exposition Commission and the Motor Car Dealers' Association of San Francisco. The latter body supply automobiles.

## EVENING SESSION:

8:00 p.m. Address:  
Samuel Hill of the Northern Pacific Railroad, with Stereopticon Views.  
Wednesday, Aug. 7.

## MORNING SESSION:

10:00 a.m. Address:  
Hon. Thomas Taylor, Minister of Public Works for British Columbia and Honorary President Canadian Highway Association.

## AFTERNOON SESSION:

San Mateo County in behalf of the State of California entertains the members of the Pacific Highway Association in celebration of the beginning of first actual construction work on the new \$18,000,000 California State Highway. Automobiles will be furnished by courtesy of the Motor Car Dealers' Association of San Francisco, and guests will be taken to the scene of festivity immediately at the close of the morning session. San Mateo County supplies the following:

## PROGRAM IN SAN MATEO COUNTY:

Upon arrival barbecue lunch will be served immediately, after which short speeches will be made by the following:

Rev. William A. Brewer, President San Mateo County Development Association, Chairman for the afternoon.

Rev. Burton A. Towne, Chairman California State Highway Commission.

Percy J. Walker, President California State Automobile Association.

W. J. Martin of South San Francisco, on behalf of San Mateo County.

Response: By representatives of Pacific Highway Association.

## Informal Jollification.

Godspeed.

This highway convention has attracted great attention among builders and users of roads, public officials, automobile men and others, all over the coast, and was largely attended. Many of the delegates came down by motor from British Columbia, Washington and Oregon, arriving at Sacramento on the 2d, and some made a side trip to Yosemite before the convention opened. Those who came by motor report great enthusiasm for the good roads movement all along the route.

The principal work in immediate prospect is as follows:

The California Highway Commission at Sacramento will receive bids August 26 for construction of approximately 56 miles of permanent state highway of a Portland cement concrete base and bituminized wearing surface. Comprising: Stanislaus county, about 11 miles; Merced county, about 10 miles; Fresno County, about 9½ miles; Madera county, about 7 miles; San Diego county, about 8.4 miles; Madera county, about 10 miles.

Bids will be received August 5th at Burlingame, Cal., for 373,200 square feet of paving and other work for the improvement of Howard avenue district. Also for East Lane district, containing 22,450 square feet of paving and other work in this district. Pavement is to have 4-inch Portland cement concrete base of 1-3-5 mixture, rock and sand or gravel aggregate; 1½-inch bituminous wearing surface, 40% rock ½-inch under, 60% sand graded to suit engineer.

In addition to this work the Southern Pacific Railway will have about 3,000 feet private contract executed at the same time.

Plans and specifications are under way for the improvement of the street known as "County Road" contemplated to contain 212,220 square feet of 5-inch Portland cement concrete base 1-2½-5 mixture and same wearing surface as above. This work will probably be let about September 9.

Oak Grove district in Burlingame comprises 383,000 square feet and will be improved with 4-inch Portland cement concrete base and 1½-inch bituminous wearing surface as above. This district comes up about September 16 and the permanent pavement will replace an old water-bound macadam road. Eric Wold is the city engineer.

The Board of County Commissioners of Los Angeles County have signified their intention of constructing several miles of highway on a Portland cement concrete base with a bituminized wearing surface. They have finished the spending of the \$3,500,000 bond issue passed upon the basis of asphaltic macadam roads and their present plan shows the trend towards concrete base or really permanent construction. It is planned to lay roads with money from an unrestricted general fund and put them in good.

Merced, Cal., has published resolution of intention for 39 blocks of pavement to be laid on a 4-inch Portland cement concrete base and have a 1½-inch

sheet asphalt wearing surface. Curbs, gutters, etc., are included. J. F. McSwain, City Engineer. J. D. Wood, City Clerk.

San Mateo county will hold an election December 16 to decide on the issue of \$1,500,000 bonds to carry out a proposed boulevard system. The highway commissioners of Orange county will shortly recommend a bond issue of \$1,250,000 to complete the system of good roads started by the State highway. The town of Carpinteria has voted to issue \$85,000 bonds for road work. In San Francisco the supervisors have been asked to set aside \$90,000 to repave Geary street following the laying of the new municipal building. Estimates have been called for on paving several other streets.

## Iowa Cities Favor Concrete.

Davenport, Iowa, August 21.—Sentiment in Iowa for concrete paving is more favorable than heretofore. City Engineer Jent Thorne, of Clinton, reports that his city, which has laid several blocks of concrete, is well pleased. The six blocks laid at New Hampton last year and the seven now in construction have been visited by municipal officials from the surrounding small cities. The Ford Construction Company, of Cedar Rapids, has been awarded the contract for 35,000 yards of asphalt concrete pavement at Waverly. The paving laid at the entrance to Bever Park, Cedar Rapids, and in the east part of the city is being watched and if it is successful more will be used.

## Build Roads on Own Hook.

Minneapolis, Minn., August 21.—County boards in Minnesota are not depending entirely on state aid to construct permanent roads, according to J. H. Mullen, assistant engineer of the state highway commission. The available funds are only \$340,000, but work to cost \$1,260,000 is already under way under the direction of the state engineer. Another \$1,000,000 is being spent in gravel roads, stone bridges, concrete culverts and other road improvements in which state engineers are assisting with advice.

The Winona County Board of Commissioners will build six miles of concrete roadway sixteen feet wide.

## Road 150 Miles Long.

It is reported that the promoters of the Sheridan road near Chicago, Ill., after a recent visit to the concrete roads in Wayne county, Mich., have decided to construct the Sheridan road according to the Wayne county specifications. The Sheridan road will be 150 miles in length.

## Flint Chips in Concrete.

Lincoln, Neb., August 21.—The Burke-Cochrane Construction Company is pushing asphaltic concrete paving. Nine blocks have been paved on Washington street with a two-inch wearing surface with a good proportion of flint chips from the zinc mines in Joplin, Mo.

## Much Work in Missouri.

Jefferson City, Mo., August 21.—Bonds to the amount of \$854,000 have been issued since May 1, 1911, for the construction of special roads in special road districts in eleven Missouri counties.

## Missouri Town Adopts Concrete.

Columbia, Mo., August 21.—The paving of Lowry street with concrete is advocated.

## CONCRETE IN NORTHWEST.

Seattle, Wash., August 21.—The Order of Friends, Seattle, has begun a movement for a concrete stadium to cost more than \$100,000. It is hoped to have the structure completed for the Golden Potlach of 1913.

The administration building of the tuberculosis hospital at Richmond Highlands, near Seattle, will be of concrete and brick.

Seven silos of reinforced concrete are to be built near Bismarck, N. D., under the personal supervision of Government officials. In LaMoure county a reinforced concrete silo has been built with a roof of the same material.

C. F. Graff, concrete contractor, Crary building, Seattle, Wash., was awarded the contract for the concrete substructure of two bridges for the Canadian Northern railroad, to cost \$300,000.

## CONCRETE RANGE BUILDER A SOLDIER.

Quincy, Ill., August 21.—E. L. Wingerter, of the Marble Head Stone and Lime Company, who is also a non-commissioned official in Company F, Fifth Infantry, Illinois National Guard, has the contract for the new concrete abutment and target houses at the rival range of this city.

# CONSTRUCTION OF THE KEOKUK DAM

BY H. G. CUTLER.



GENERAL VIEW OF KEOKUK DAM.

When the college freshman, visiting his civil engineering friends, had gone over the dam, the power house and other links of the hydraulic and electrical development at Keokuk, Iowa, he still had breath to exclaim: "This sure is a chunk of concrete!" As a whole, the improvements will rest upon a solid, continuous bed of concrete two miles long—the greatest demonstration of the utility, durability and plasticity of concrete work which exists. The links in the massive chain of structures which is being thrown across the Mississippi from Hamilton, Illinois, to Keokuk, Iowa, are the dam nearly a mile long, power houses one-third of a mile, government locks four hundred feet, government dry docks nearly five hundred feet, railroad sea wall one-fifth of a mile and ice-fender one-half a mile.

In the heart of the Mississippi Valley is here being constructed the only great water and electrical development in interior America. All other such works are on the border sections of the United States.

When I visited the development on July 4 it was expected that the last section of the dam would be

completed to the power house on the Iowa side in about a month. Perhaps three quarters of the 900-foot house is finished which is to furnish the power and light actually under contract, and the substructure is built for the second power house, which is to run south 800 feet or more and supply the remainder of the eventual capacity of the works, over 300,000 horse power. St. Louis, Burlington, Keokuk, Fort Madison, Quincey, Hannibal and minor points in Missouri, Iowa and Illinois have already contracted for about one-half the capacity.

As I was able to take easy jaunts from Keokuk into Illinois over the Mississippi river bridge, and into Missouri over the Des Moines, I realized how this power site held the key to the manufacturing and lighting activities of large and populous sections of at least three adjoining states.

The improvements which must be completed by July, 1913, and probably will be finished some months earlier, will not only supply these benefits, but furnish deep-water navigation (eight feet) for sixty-five miles above the dam. When the new dam and government locks are completed, each over fifty

feet high, the little old canal of nine miles and the pigmy locks, which have served navigation so long and imperfectly, will be drowned out. The present canal and locks, nearer the Iowa shore than the gigantic ones under construction, will be used through the navigation season of 1912. The new lock is 110 feet wide, the same as those at Panama. The lift of the gates is forty feet, as against thirty-two feet at the isthmus. The government dry dock will be built alongside the new lock, between the latter and the Iowa shore, blotting out most of what is now the lower lock of the old canal. This, one of the last of the improvements, will be constructed during the season of closed navigation, between November, 1912, and April, 1913.

Still west of the dry dock site is the sea wall, running along the river bank for over one thousand feet, from 45 to 75 feet in height, and built to protect the tracks of the Chicago, Burlington & Quincy Railroad, which was compelled to raise its road bed to meet the fifty-foot elevation of the new dam. The sea wall is also solid concrete, as will be the

(Continued on page 50.)

# WILLOW SPRINGS SCHOOL HOUSE

The new public school at Willow Springs is located on the line of the Chicago & Joliet Electric Railway near the Mount Forest Avenue crossing. It has the distinction of being the only fire-proof schoolhouse in a rural district in the United States.

The architect is G. W. Ashby, the well-known school specialist. The walls, basement and partitions are constructed of the Pauly hollow tile and veneered with a dark wire-cut brick for seven feet above the basement. Above the courses of the brick the surface of the building is plastered with cement mortar and rough-cast, with a throw-coat composed of cement and selected sifted stone screenings. The floors, approaches and steps of the building are all constructed of Pauly hollow tile, with reinforced concrete T-beams merged between the tile.

The concrete floor tiles used in this job are of a special shape for floor purposes, devised by Ross F. Tucker, of New York, so as to cast or form I-beams of concrete between the tiles when they are placed in position for the floor. The floor is figured to carry a live load of 80 pounds to the square foot and is finished with a matched maple wooden flooring.

The approaches of this schoolhouse are also of Pauly hollow tile, as well as the chimneys and all other parts, with the exception of the roof, which is of wooden construction on the inside, with steel ceilings throughout, the roof to the weather being of felt and tar and gravel.

This schoolhouse was built by A. F. Nagel, general contractor, of Lemont, Ill., and the bids were made in competition with brick and wooden floors and approaches, and with frame schoolhouse throughout.

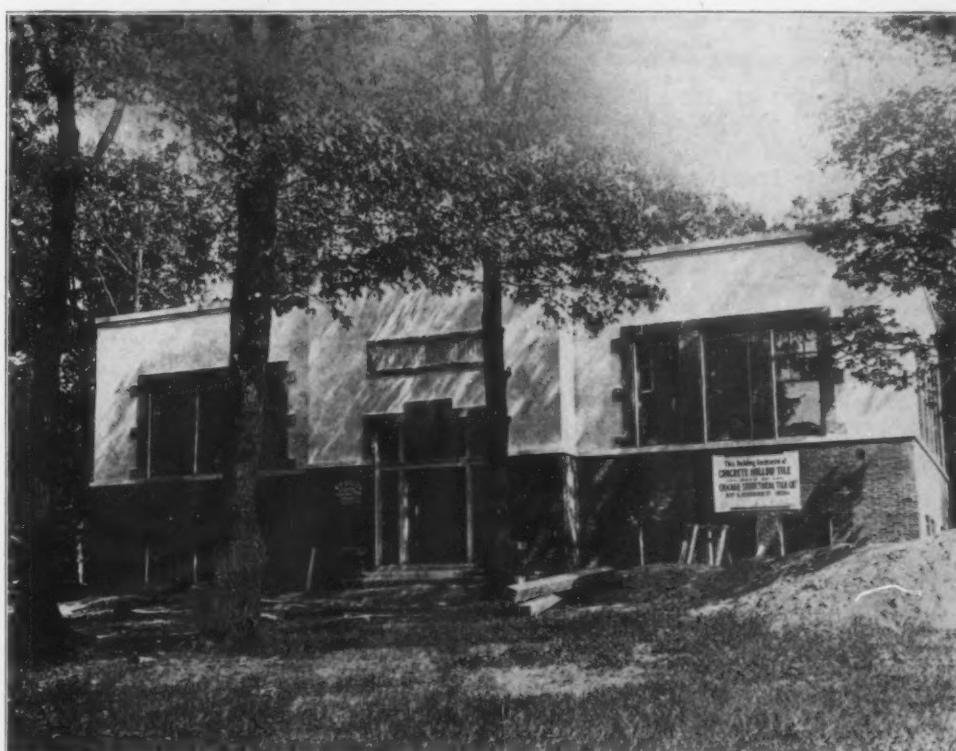
A fireproof schoolhouse, measuring 64 feet by 36 feet, and 25 feet high above the basement floor, was finished complete for the sum of \$6,500. It is a little gem architecturally, and the school teachers claim that it is one of the most convenient schoolhouses they have ever used, and the floors are absolutely soundless and the building thoroughly safe. A direct path of concrete from the school-

room to its doors makes it the finest schoolhouse it is possible to design.

The school board of the district, consisting of George E. Farrell, M. Pape and Nellie Hopcroft, are entitled to the credit for this schoolhouse, to-

gether with G. W. Ashby, school architect, who hereby adds another mark to his credit.

The entire building is constructed of tile manufactured by the Chicago Structural Tile Company, office 537 South Dearborn Street, Chicago, Ill.



WILLOW SPRINGS SCHOOL—STRUCTURAL TILE CONSTRUCTION.

# Concrete

## National Association of Cement Users

Meets Annually.

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Peter Gillespie, Toronto, Canada—Nomenclature.	
Sanford E. Thompson, Newton Highlands, Mass.—Specifications and Methods of Tests for Concrete Materials.	
Logan Waller Page, Washington D. C.—Education.	

### LOUISVILLE'S NEW HOSPITAL.

#### Something About the New Structure of Concrete Now in Course of Erection in that City.

Louisville, Ky., August 18.—A singular figure in this world of concrete construction and engineering is that of Phillip Maher, general manager of A. Bentley & Sons Company, of Toledo, O., now engaged at Louisville in the erection of one of the biggest building projects of the year. A thumbnail sketch of Mr. Maher reveals innumerable interesting features, tracing his rise from the position of an every-day concrete worker in the Emerald Isle to his present eminence as one of the leading constructionists and practical engineers of the day.

Mr. Maher's statement that he has been active in the industry for more than thirty years seems to be belied in his appearance. There is nothing about the broad-shouldered figure and his straightforward enthusiastic personality to suggest three decades of tussling with the problems of the concrete constructionist. The capability with which he is handling the concrete work on the new \$1,000,000 City Hospital in Louisville knocks any suggestion of antique methods advocated flatter than the traditional pan-cake.

He was born in one of the good old counties of Ireland in—well, that's telling, but it was a number of years ago. Coming to Dublin in search of work, he connected himself straightway with the craft he has followed ever since. At that time, just prior to his embarkation for America, concreting in Ireland was carried on along lines which would border on the unique today. Dry setting was the rule, and when the mix was laid it was tamped slowly but painstakingly to a firm bed. A foundation, according to Mr. Maher's stories, was laid in 6-inch layers those days, each layer being tamped separately and allowed to set so that the long intervals and unusual labor demanded by the work made the concrete contractor's life anything but an easy one.

Something less than thirty years ago Mr. Maher determined to seek his fortune in the New World. His passage across was accomplished slowly but safely, and without tarrying long in New York he set out for the Middle West to take up his original work. For several years he worked his way through the country, thoroughly acquainting himself with localized building conditions. Twenty-two years ago he entered the employ of the Bentley company, with which he has been connected ever since. His rise has been from a position of minor importance to that of general manager of one of the biggest projects the old-established concern has ever handled.

To relate of the many reinforced concrete structures erected under the supervision of the Bentley manager would require a good-sized volume. He has seen the ascendancy of the star of concrete in the structural world and is a pioneer in reinforcing of all sorts. That the only possible chance for failure of concrete work lies in sheer carelessness or negligence in the work itself is his firm belief, as expressed to ROCK PRODUCTS. Since the day, twenty-two years ago, when he entered the employ of the Toledo contractors, his motto has been to make each

job under his supervision a little better than the one preceding.

It was years ago that Mr. Maher superintended the erection of a big concrete dry-dock for the Toledo Ship-building Company in Toledo. This structure is 800 feet long and is one of the early examples of perfected concreting applied in this branch of construction. A reinforced concrete factory building for the J. M. Bohr Coffee Company, manufacturers of the famous Bohr coffees in Toledo, was erected and one of the biggest and handsomest hotels in the Buckeye city is the result of work done under Mr. Maher's supervision. The biggest wholesale hardware concern in that city also occupies an 8-story concrete building erected by the Bentley interests.

With a number of the biggest building projects in Toledo as a nucleus, the A. Bentley & Sons Company has branched out and covered the Middle West in its operations. Mr. Maher has blazed the trail for his concern in many new localities. A 10-story reinforced concrete factory in Cincinnati, O., testifies to the advance of the Toledo constructionists through the Ohio valley.

Now the company is at work upon the new City Hospital in Louisville and this undertaking is pronounced to be one of the most important in which its forces were ever engaged. Each of the eleven spacious buildings making up the institution is of reinforced concrete frame, with brick curtain walls

past. Louisville still maintains her eminence as the leader of all cities evidencing building activity in proportion to their size.

To the unprecedented expansion of construction work in general is attributed the present rush for concrete work. The builders are experiencing difficulty only in meeting the demands thrust upon them by an importunate public, which desires to get as much building as possible out of the way before the advent of cool weather. And, at that, the prospect is that frost will not put in its appearance for a couple of months. This section of the country has passed through a phenomenally cool mid-summer and the Weather Bureau forecasts a late fall and plenty of sunshine through September and October.

After having been in course of construction for months, the handsome Arcade, which was erected by the Central Concrete Construction Company and which has been finished off by the American Mosaic & Tile Company, both of this city, is ready for occupancy. The new structure, which is beautifully made of concrete, ornamented in tile and stucco, contains five stories on the ground floor and ten up-stairs. It possesses the distinction of affording one of the most desirable down-town locations available at present and is one of the wonders of the local real estate world, commanding exceptionally fine rentals for its owners.

The National Concrete Construction Company, according to its report to ROCK PRODUCTS, is busy with outside work almost exclusively. In Alabama, Tennessee and Kentucky the company has a score of projects under way for the Louisville & Nashville Railroad Company. The L. & N. has appropriated more than \$10,000,000 toward the improvement of its rights-of-way in these states and many culverts, bridges and under-passes are being erected of concrete. One bridge now being erected by the National forces near Bangor, Ala., demands 7,000 square yards of concrete and the work in general typifies the most approved construction applicable to railroad work. The National Concrete Construction Company is also erecting a 4-story bottling plant, 150 by 150 feet in dimension, for the Cook Brewing Company in Evansville, Ind.

The Selden-Breck Construction Company, of Louisville and St. Louis, Mo., has received the award of a contract for the erection of the new Starks building, a magnificent concrete, steel and brick skyscraper which will occupy the northeast corner of Fourth avenue and Walnut street. The site of the Starks building is pronounced to be the most valuable at present unimproved in the city of Louisville. The mammoth structure is to be completed by June 1, 1913, according to the terms of the contract awarded by the John P. Starks syndicate to the Selden-Breck company.

A couple of weeks ago a crew of twenty Federal engineers and assistants, working under the direction of the War Department at Washington, D. C., arrived in Evansville, Ind., to commence the survey for the Government dam, which will span the Ohio river between Evansville and Owensboro, Ky. Another dam, seventeen miles below Evansville, has just been commenced by the Ohio River Contract Company.

Cement brick made by the Unit Brick & Tile Company, of Louisville, is to be used in the erection of the immense new warehouse of the Burley Tobacco Society in Lexington, Ky. Such was the verdict of the Combs Lumber Company officials in Lexington, after a recent conference with the heads of the Burley Tobacco Society. The U-shaped cement brick won out as the most desirable material offered for the Lexington job after a terrific struggle, during which it competed against dozens of other clay products offered from half a dozen surrounding states. The new Burley warehouse is to be one of the biggest structures of its kind in the world. It will be a block and a half in length, half a block in width and three stories in height, with hollow walls made of Unit brick. The Combs Lumber Company, of Lexington, general contractors for the work, is to rush the big enterprise through as rapidly as possible.

The unusual incident of a resident of one state suing a corporation of another state, the action being instituted in still a third state, has occurred in Kentucky, involving the Foster-Creighton-Gould Company, a prominent firm of concrete engineers which has completed the concrete work upon the new \$2,000,000 bridge owned by the Kentucky & Indiana Terminal Railroad Company and spanning the Ohio river at Louisville. George W. Elkins, of New Albany, Ind., has filed suit for \$10,000 against the Foster-Creighton-Gould Company in the Jefferson Circuit Court for \$10,000, alleged to be due for severe personal injuries suffered while in the employ of the defendant company on the new bridge. The suit has been instituted in Kentucky by a resident of Indiana against a Tennessee corporation.



PHILLIP MAHER, MANAGER, THE A. BENTLEY & SONS CO., LOUISVILLE, KY.

and gray brick facings. The hospital is to be one of the biggest and finest of its kind in the world.

The very method of handling concrete at the hospital speaks for the ingenuity and ability of the man behind the Bentley guns. Because of the extensive area covered, it seemed impracticable to mix concrete at a dozen or more separate stations, entailing loss of time and labor and inevitable waste of material. Consequently Mr. Maher planned a system which involves a central mixing tower, from which concrete is piped over-head to distributing stations which take care of the needs of the buildings in course of construction. The scheme is original but none the less effective, its efficiency testifying volubly to the progressiveness of the quiet, forceful Irish manager, whose manner is distinctly that of a Napoleon in construction, for, like the Little Emperor, he makes his own circumstances.

### LOUISVILLE CONCRETE NEWS.

Louisville, Ky., August 18.—Concrete work in Louisville and Kentucky has proceeded at a rapid rate during the past month. Wherever there was a job to be handled, the trade found little difficulty in undertaking it, for natural conditions have been favorable and the attitude of prospective builders has been receptive. Contracts are not as difficult to develop and clinch as they used to be, for the Bluegrass is in the grip of a building fever which has served to make this state lead all the others in the Union in structural operations during months

## ROCK PRODUCTS

B. W. Bowen and John Wells are reported to have formed the Bowen-Wells Concrete Company in Nashville, Tenn., for the purpose of handling all sorts of concrete construction work. Mr. Bowen is an experienced engineer and practical constructionist of Atlanta, Ga., and Mr. Wells has long been a prominent figure in the trade of the Tennessee capital. The new company has established headquarters in the Vanderbilt building.

### CONCRETE IN INDIANA.

Indianapolis, Ind., August 21.—August E. Hening of the Enterprise Foundry and Wire Company, of Indianapolis, has gone to Syracuse, N. Y., to superintend the construction of 4,500 feet of iron concrete fencing around the New York State prison.

The Winamac Cement Tile Company, of Winamac, filed a petition with the Indiana Railroad Commission, asking that joint rates be established on drain tile between several cities, reached by one or more of the following roads: P. C. C. & St. L.; C. I. & L.; Vandalia; Grand Trunk Western; Wabash; Pittsburgh, Fort Wayne & Chicago; Chicago, Indianapolis & Southern; Pere Marquette; Chesapeake & Ohio; Chicago & Erie, and New York, Chicago & St. Louis.

R. T. Woodard, of South Bend, has been in the field for the United Cement Manufacturers' Association of America. Among the plants visited were those of the Rock Island Artificial Stone Company, of Rock Island, Ill., and A. G. Faulkner, of Clinton, Iowa.

### CONCRETE IN ILLINOIS.

Springfield, Ill., August 21.—A. F. Nagel, of Lamont, is erecting a concrete block church in Summit. The F. Q. Johnson & Son Company, of Chicago, has been incorporated with a capital stock of \$2,500, to do general building, mason and cement contracting. The incorporators are Frank Q. Johnson, Jenkins J. J. Johnson and Oliver C. Johnson.

Cope & McDonald, of Decatur, have finished the concrete work on the new Catholic school building in that city, the second reinforced structure in Decatur.

Joy Morton, of the Morton Salt Company, of Chicago, who is advocating the reopening of the Illinois and Michigan canal to commercial navigation, proposes that the nine locks, which are 17½ feet wide and 104 feet long, be reconstructed of reinforced concrete.

Frank C. Aborn, 709 Benton street, Aurora, has gone into the cement contracting business.

A concrete block school house will be erected in District No. 15, near Aurora.

P. J. Goggin, of Arcola, was awarded the contract for a concrete bridge near Ashmore, to cost \$2,000.

The Smith & Ferriss Marine Construction Company, of Burlington, Iowa, is removing from the Illinois river at Peoria, the masses of concrete which have been a menace to navigation since the failure of the old wagon bridge. As they weighed from 10 to 20 tons each it was necessary to reduce them with dynamite.

English Brothers, of Champaign, were awarded the contract for the 4-story reinforced monolithic warehouse for the Eisner Grocery Company.

William Smith has remodeled the Miles elevator at Washington for his cement block factory.

The Mississippi River Power Company, which is building the big dam across the Father of Waters at Keokuk, Iowa, is erecting 1,160 towers for its wire lines. Each of these towers is placed on a base of concrete 40 feet square.

G. E. Hungerford, concrete culvert contractor of Mt. Carroll, was seriously injured when a tire blew out in his automobile; the machine skidded down a slippery hill and turned turtle.

Clyde Cole, of Sadorus, has a contract to make 11,000 cement blocks for an office building in that city.

Officials of the Chicago & Alton Railroad are reported to have decided to build a new reinforced concrete arched bridge across the Kankakee river at Wilmington.

The Ideal Culvert Form Company, of McLeansboro, has been incorporated with a capital stock of \$10,000 to manufacture ideal culvert forms. The incorporators are Charles L. Young, William J. Boyd, Jr., Albert D. Boyd, Clarence L. Boyd and Francis R. Wilson.

Contract for the concrete work on the Mackinaw river bridge in Tazewell county was awarded to Edward Cooney, of Tremont, for \$880.

Newkirk & Powers are building a locomotive machine shop for the Elgin, Joliet & Eastern Railroad at Eastern Joliet of concrete and concrete blocks. It will be 150 by 600 feet.

Plans for the Cairo drainage district, to protect that city from floods, include a concrete wall 1 foot thick, 7 blocks long, reinforced by  $\frac{3}{4}$ -inch steel rods, criss-crossed 15 inches apart. This wall, which is designed as a reinforcement for the present stone wall, will rest on a concrete foundation far below the surface.

Charles M. Greisemer, near Hopedale, has built a 30x40 corn crib of concrete blocks at an expense of only \$650.

Edward Fox, of Mt. Carroll, has been given the contract for a concrete mausoleum in that city.

John D. Megowan, of Upper Alton, has built a 2-story concrete block warehouse for his cider mill and apples.

Frank R. Dalton and Nels Nelson have formed a partnership to do a general cement contracting business at Aurora. Nelson has been in the concrete construction field for three years.

Davis Ewing, president of the Davis Ewing Concrete Company at Bloomington, is also president of the East Side Improvement League in that city.

The C. J. & M. Davis Tile Works, of Timewell, had an exhibit of cement drain tile, building blocks, silo blocks, curbs, fence posts and water tanks at the Brown County Fair at Mt. Sterling the week of August 6. Twenty-eight sacks of cement were given away in a guessing contest.

### SAN FRANCISCO CONCRETE NEWS.

Activity in concrete construction has increased materially all over the state, present work including a number of bridges, dams and piers, as well as many buildings and small jobs of all kinds. Scores of contracts have been let by counties for small bridges and culverts, and bonds are being issued for many sewer, paving and similar jobs in which concrete will be largely used.

The Pacific Gas and Electric Company now has much of the equipment on the ground for the concrete dam at its new reservoir and is preparing to build a large concrete-lined canal from the reservoir to the penstock. For this work it will require a 3-mile railroad, and is now in the market for four complete etain outfit, each of which will consist of a crusher with gas engine, a geared elevator, a screen and a mixer. The four outfit will turn out about 1,800 tons of mixed concrete a day.

The supervisors of Alameda county, Cal., have let the contract for a large reinforced concrete bridge over Alameda creek at Niles, Cal., to the Locke Construction Company at \$71,460.

The Los Angeles city engineer has been ordered to draw up specifications for a 2400-foot wharf in the outer harbor at San Pedro, the cost of which is estimated at \$360,000. It has also been decided to build a 1600-foot wharf on the inner harbor, to cost about \$100,000. The city of San Diego has also been figuring on a large wharf with sheds of concrete, which will be one of the largest single jobs of this kind in the state.

The Southern Pacific Railroad on August 1 opened its new concrete passenger station at Sixteenth street, Oakland, one of the finest stations in the state. The building is two stories in height, with provision for elevated tracks for local traffic. It is 600 feet long and 140 feet wide, the exterior being faced with granite below and glazed tile above.

The Merriett Forms Company, of Colton, Cal., is engaged in the manufacture of patent forms for any kind of concrete construction, and is now working on a large order from a winery at Cucamonga, Cal., which is building some large storage cellars.

### NEW YORK CONCRETE NEWS.

New York, August 14.—Construction work of reinforced concrete has shown a marked improvement during the past month. A large number of contracts have been received of late which will make the current year one of the best in concrete building in this vicinity.

Mr. Chapman, of the Turner Construction Company, which is one of the largest reinforced concrete construction companies in the East, reported that during the first half of the current year the amount of reinforced concrete construction work done locally was fairly good, but of late it has improved to a marked degree and at the present time they are being kept very busy. "We have considerable work from out-of-town points," he said. "The volume of reinforced concrete work is on the increase every year and we are doing more work each year, which is more than can be said of any other building material. We have received the general contract to erect the 4-story reinforced concrete factory, 50x128 feet, for the Standard

Varnish Works, Houseman avenue, Elm Park, Staten Island, N. Y. The general contract for a 9-story warehouse of reinforced concrete to be erected for the Baltimore & Ohio R. R. at 26th street and 11th avenue, New York City. Mr. M. A. Long is the architect. We have also received the contract for the largest reinforced concrete loft building yet built in Hoboken, N. J. It is 10 stories in height, measuring 200x100 feet; the site is to the north of 14th street, and is being built for the Hoboken Land and Improvement Company. The architect is Charles Fall, 100 14th street, Hoboken, N. J."

Plans are being prepared by F. J. Helmle, 190 Montague street, Brooklyn, N. Y., for the City of New York Department of Bridges on Water street, Brooklyn, N. Y., for a 2-story reinforced concrete factory and store buildings to cost \$160,000. Arthur J. O'Keefe, Commissioner, 13 Park Row, New York City.

Samuel Wells, the New York representative of the McCormack Waterproof Portland Cement Company, is also in charge of affairs of the Underground Construction Company of St. Louis, Mo., with offices in the Singer building, 149 Broadway, New York City. The Underground Construction Company make a specialty of manufacturing and placing underground reinforced concrete corrugating piling and the McCormack interlocking sheet piling. They are prepared to submit proposals on specifications. The concrete piles can be waterproofed and otherwise.

### PITTSBURGH CONCRETE NEWS.

Pittsburgh, Pa., August 16.—Big jobs that will require lots of concrete continue to loom up in Pittsburgh. The Hump project and the attendant building construction that is now going on or will be in progress during the next eighteen months means a big market for concrete itself. Then the raising of the Pennsylvania railroad tracks in the East End and Wilkinsburg will make another immense outlet for the manufacturers, as will the B. & O. project at its city and North Side terminals. Warehouse building is taking a larger proportion of concrete this summer than ever before. Several reinforced concrete structures are going up and store buildings of this kind are getting more frequent every month.

The Larimer avenue bridge in the East End, which was formally opened a few days ago with much ceremony, has the longest single reinforced concrete span in the United States and the second longest in the world. This span is 312 feet and the total length of the bridge is 679 feet. The roadway is 30 feet wide and it has two ten-foot sidewalks. The bridge was started May 2, 1911, and cost \$140,000.

The Iron City Stone and Construction Company, of Wilkinsburg, is likely to get the contract for the reinforced concrete bridge across the Loyalhanna creek, which is to cost about \$38,000.

Irvin & Withrow have a number of good jobs on the boards in which reinforced concrete construction will be used. They have had a busy year in this kind of building and see a big future for it in Greater Pittsburgh.

Wm. G. Hartranft Cement Company, Real Estate Trust building, Philadelphia, are forging ahead and meeting with pronounced success that the company deserves. The mill was recently brought up from 1,000 barrels a day to 2,000. The old short kilns have all been thrown out and four new 100-ft. kilns installed. The Phoenix mill is now in its twelfth year. Arrangements are now being made to build a new 200,000 barrel stock house this summer or coming fall.

We have received from the Link Belt Company, Chicago, a copy of a new booklet they have published, illustrating and describing their steel chain. They are known throughout the world as the inventor and the largest manufacturers of the original Ewart detachable link belt, which is made of refined malleable iron. Copies of this new book will be sent free on request.

The Ricketson Mineral Paint Works, Milwaukee, Wis., continues to meet with pronounced success with their products. They are continually getting enthusiastic letters from those who use their paints.

Rochester, Minn., August 21.—The Rochester Automobile Club is behind a movement to build twenty-eight miles of concrete roads from Oronoco to Rochester and from Rochester to Stewartville.

# CEMENT

## Association of American Portland Cement Manufacturers

Meets Semi-Annually.

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### PUPILS MAY PROMOTE CEMENT USE.

When the township high school at Gibson City, Ill., needed a tennis court, the manual training class made cement posts for the nets and cement backstops.

Seniors of the Rantoul, Ill., high school wished to leave behind a memorial which should be artistic, useful and not too expensive, yet which would evidence something more than a mere contribution from each member. Victor Carlson, a member of the class, designed a concrete drinking fountain for the campus, and other members assisted in its construction.

No funds were available for an industrial building at the Manataee, Fla., high school. The grammar school boys made concrete blocks, the high school boys put up the walls and the roof, and the girls lathed the interior. The finished structure, 25x50 feet, called Kendall Industrial Institute, in honor of the instructor who suggested the plan, is a testimonial to the value of the public school for early missionary work in the use of concrete work.

Additional proof of an opportunity to utilize the schools is the fact that all the members of the Rantoul class took a great interest in the building of the memorial fountain. "I think that working in concrete would be fine for a young man with ambition and also very profitable to one who has any artistic sense," said Victor Carlson, the designer, to a representative of ROCK PRODUCTS. Contemplating the ivory white shaft, two and one-half feet high on bases of seven and one-half feet and three and one-half feet square, he added: "In my mind I do not believe we could have erected anything finer and more useful than a concrete drinking fountain. Of course, we could have gotten other material more expensive, but I do not believe it would have been any stronger or more beautiful in appearance."

A central Illinois cement retailer who is born "long" on advertising and generating business, was asked for a suggestion as how to cheaply and effectively promote the sale of cement through the rural and small city schools. He parried the question with:

"Did you ever hear the steak story?" The Rock Products representative had not.

"A man traveling in Scotland stopped at a wayside inn for supper and ordered from the landlord's son a nice juicy porterhouse steak one and one-half inches thick, cooked so-and-so." In a few minutes the boy came back with a grin all over his face and reported that if father knew where there was such a steak as that he'd eat it himself. If I could find a good cement advertising scheme I'd use it myself."

The museum of industrial chemistry is one method in vogue that is successfully utilized by producers in other lines. Nearly every schoolhouse in the United States has a collection of commonly used articles showing the various stages reached in producing the finished article from the raw. Coffee in various stages of greenness, ripening and roasting is exhibited, breakfast foods, flours, lead pencils, paints and oils all are carefully explained by little glass bottles—a stage of manufacture to a bottle. The manufacturers furnish them free each one in a neat case to hang on the wall.

A proper mixture could be made from the formula of an Ohio piano man who wished to interest children in pianos. As the boys and girls came from school he secured their names fixing the limit at one hundred. He told them that when he had one hundred they would draw numbers and the one holding a lucky number would receive a prize. He filled a window with dirt and heaped up two piles. In one he placed a present, worth a dollar, suitable for a boy and labeled it "If It's a Boy, Dig Here." In the other was a present for a girl and the caption "If It's a Girl, Dig Here." In the center of the background was a sign which read "You'll Read This. Why? Because, being in such a good humor you are in the proper mood to take a hot one right off the bat. Just let it sink in. You'll get more satisfaction out of an ..... piano than any other piano on the market." The mystery of the thing stirred up the town. When he took the name of the child he asked them if their parents had talked about buying a piano—it could be a cement walk as well—and got several good prospects. The day of the drawing a big crowd was present. A little boy drew the lucky number and was lifted into the window and began to dig while the crowd stood breathless. When he found the prize he opened it in view of the crowd. The other ninety-nine lined up for their souvenirs and agreed to help in another scheme. A set of the miniature cement block moulds which have become so popular would be an excellent prize for a contest of this sort for as soon as he had built a small house the other boys in the neighborhood would want an outfit and pave the way for a growing cement trade; the parents could not help but be interested.

Boy scout patrols and classes from school inspect all sorts of industries, but who ever heard of a concrete block manufacturer or anybody who has to do with cement inviting them to learn about one of the biggest industries in the country?

### CEMENT IN BRITISH SOUTH AFRICA.

Although the consumption of cement in South Africa is steadily increasing, the importation does not keep pace therewith. Only in 1910 there was an exception in this particular; as in the preceding year, partly on account of the inception of the South African Union, there was a very lively movement in building circles, both public and private. The importations of cement in 1910 and 1909 were respectively £123,896 and £71,155. Of these amounts Great Britain sent £91,731 and £52,021, Belgium £19,460 and £10,461, and Germany £10,176 and £7,319. In these figures it is also possible that some of the cement put down as Belgium, was "made in Germany."

Imported cement is used principally in the coast towns and the near-lying districts; also by the State railways, which need not pay so much attention to the matter of freight rates as private customers must do; and finally it is employed in such work as requires a special degree of safety or impermeability to water—as for instance, dams and irrigation work. It may be assumed that the greater part of the cement imported through Cape Town remains in the Cape Colony, whereas that which comes via Lourenço Marques goes without exception to the Transvaal, and the importation via Durban is for Natal, the Transvaal and the Orange Free State.

The demands of the interior are met almost exclusively by the Pretoria Cement Company, Ltd., in the city of Pretoria. Up to date this is the only South African cement work; it was started by the well-known and influential mining and financial firm H. Eckstein & Co. (now incorporated under the name of the "Central Mining and Investment Corporation, Limited") and is managed by this concern. The Pretoria Cement Company is at last successful—after many years of struggling and loss. It makes a cement which, although not so good as the imported, is for all that useable; and the production and consumption are steadily increasing. In 1910 the sales were 76 per cent greater than in 1909; and the concern has long-time contracts with a considerable number of customers. The plant was recently enlarged, and can now deliver 80,000 bags, each of 188 English pounds net, per month. The present production is about seven-eighths of this quantity—or say, 157,290,000 pounds per year—which is a trifle more than the entire importation of cement into British South Africa in 1909, although not quite up to that for 1910.

The prices ruling in Johannesburg and on the Witwatersrand for imported cement are, for considerable quantities, 26 to 28 shillings per standard barrel of 376 pounds net (exactly two bags); for smaller lots 30s to 32s 6d. For Pretoria cement they run for large lots 9s per sack, for small lots 10s 6d; in other words, the Pretoria cement is 33½ per cent cheaper than the imported.

The railway freight for cement from Lourenço Marques to Johannesburg is 4s 3d per 100 English pounds; and from Durban to Johannesburg 4s 6¾d.

The success of the Pretoria company in the manufacture of cement had led it a few months ago to form in connection with the parent company (Central Mining and Investment Corporation) and the financial firms of Lewis & Marks and Abe Bailey, a daughter company, called the Concrete Construction Company, Ltd., in Pretoria, for béton manufacture and construction. The capital is £60,000 in one pound shares, which are put on the market at 30 shillings,—that is, at 150. The factory will work on the vibration plan and make articles of béton armé, for instance, hollow building blocks, railway ties, sewer pipes, telegraph poles, paving blocks, cement slabs for floors, etc.

The constant increase in the demand for cement in South Africa, and the reassuring conditions under which the Pretoria company is operating, had led to the projecting of other companies for similar work; but as yet none of these has actually come into being.

### NEBRASKA CEMENT USERS.

The Board of Directors of the Nebraska Cement Users' Association met at the Rome Hotel in Omaha July 30. At this meeting arrangements were made and dates set for the annual convention and Mid West Cement Show.

They have made arrangements for the Auditorium for the dates February 6, 7, 8, 9, 10, 11, 12, 1913. The Board of Directors in setting the dates have varied somewhat from the usual custom of holding the show during the Friday morning and running it until Tuesday night. The idea in making this change was, that by holding the show on Saturday, the large Saturday afternoon and night crowds would be there that have heretofore been missed. Then by resting on Sunday it would give the exhibitors a chance to rest up and look around and get a line on prospects that had developed the first two days so that they could be closed up on Monday and Tuesday.

Then there are always a lot of prospects that will run in to Omaha on Saturday morning and take in the show and go back on Sunday.

The outlook for a big show has never been better. Crops all over the Mid West are good. There has been a larger demand for cement throughout the country than ever before and a good many cement users will be looking for new machinery and supplies.

Also the fact that there will be no show nearer than Chicago this year, and that the show comes at a time that is neither too early or too late in the season, has made the board feel that the prospect for a good show could not be brighter.

The arrangement of the Auditorium will be practically the same as last year and the prices will run about the same. The association will have a trunk line installed for electric power same as before, so that the cost of power and connection will be very small.

Frank Whippman, the secretary, says that plats and space contracts will be out soon. There has been a good many inquiries for space at this show. Nearly half of the exhibitors who were here last year have selected the same spaces for this year's show.

The secretary, residing in Omaha, will be on the ground all the time and with a good board of boosting directors and the publicity bureau of the Omaha Commercial Club, will make this the best cement show ever held outside of Chicago.

### SIX ILLINOIS PLANTS PROLIFIC.

The advance census bulletin issued by W. M. Steuart, chief statistician for manufactures shows that in Illinois in 1910 there were six establishments for the manufacture of cement employing 1,536 persons. Of these 28 were salaried officers, managers and superintendents, 95 male clerks and 18 female clerks, while 1,395 were classed as wage earners. The plants combined are capable of developing 15,720 primary horsepower. Capital of \$6,686,567 is represented in the six plants. The total expenses were \$3,197,433. The value of products for the year was \$4,087,507 of which \$2,468,698 was added by the manufacturer.

### CEMENT MEN'S FLOATS WIN.

Bath, Pa., August 21.—Floats showing the process of manufacturing at the Pennsylvania and Bath Portland Cement companies' plants were awarded honor ribbons in the industrial parade which formed a part of the old home week celebration, the week of August 6. These two plants and the Penn-Alen Cement Company are each turning out about \$1,000,000 worth of cement each year.

## NEW YORK CEMENT NEWS.

New York, August 14.—A marked improvement was noted in local cement market during the past month. Stocks are moving along steadily and the amount of cement on hand is smaller than it has been for some little time. The leading cement companies have advanced the price of cement and are now quoting 70 cents, in bulk, at mill. Dealers are, however, complaining of the difficulty entailed in making collections, and one prominent in the cement trade stated that just as much money is expended in making collections as in obtaining business. The outlook, however, is bright for a good fall business to come to hand. The exports of cement from the United States for the month of June, 1912, showed an increase of over 100,000 barrels for the same time last year, 369,183 barrels were exported during June, 1912, and 240,965 barrels were shipped June, 1911. The following figures show a marked improvement in the shipping of cement to foreign countries during the past three years, 1,715,169 barrels valued at \$2,292,376 for the year ending June, 1910; 2,971,274 barrels valued at \$4,490,290 for the same time in 1911, and 3,243,742 barrels valued at \$5,083,026 for 1912. While the imports show a big decrease, as shown by the following statistics. During the month of June, 1911, 7,117 tons were imported and in June, 1912, 2,802 tons, about one-third of the amount received during June, 1911. Cement imports have fallen off considerably during the past three years, as can be readily seen by the government figures for the fiscal year ending June. During 1910, 81,551 tons were imported valued at \$602,833; 1911, 46,649 tons entered this country estimated \$324,949 and for 1912 22,099 tons valued at \$168,802 were imported. Germany has been the largest shipper to this country, followed by the United Kingdom of Belgium.

H. A. Brocas, of the Lehigh Portland Cement Company, stated: "The demand for cement in the local market was fairly good of late and there are prospects that business will continue to improve from now on. The steel mills report that they have a heavy amount of orders which will keep them going at their full capacity for some time to come. This would reflect not only on the cement market, but also on all other building material lines. From present indications the fall demand looks very bright indeed. The price of cement has been advanced to 70 cents, in bulk, at mill."

George A. Molitor, of the Northampton Cement Company, added: "A moderate amount of cement has been moved in the local market during the past month and stocks on hand are much smaller than they have been for some time. Cement has been advanced 70 cents, in bulk, at mill, and the condition of the local cement market is much brighter than it has been for some time past. The fall demand, especially in Manhattan, is expected to be of good proportions."

Samuel Wells, manager New office of the McCormick Waterproof Cement Company, stated: "The demand for our product is coming along nicely. During the week we received two large sized orders, which will keep us busy for some little time delivering our goods. Our material is being specified by many architects who have obtained good results from our waterproofing cement. The Lawrence Cement Company are using our waterproofing process at their mill in manufacturing their waterproofing cement and they have received many favorable comments and are selling quite a good amount of it."

## CHICAGO CEMENT NEWS.

Chicago, Ill., Aug. 19.—With probably a bigger consumption of cement than any previous year, particularly in the middle states, production has barely kept pace with the demand. Consequently stocks at mills are lower than they were last year this month by 20%. This estimate varies somewhat in different localities, but is believed to be a fair average estimate. Shipments are heavy and prices strong, with a tendency upward to higher levels with the commencement of the fall season, which this year promises to show more activity than in past years. Conditions in every way in the cement industry are excellent, with one drawback. This drawback is the threatening car shortage, which every line of industry in the country will have to face, but may be mitigated to a great extent by the intelligent cooperation of shippers and the railway companies.

A timely circular letter, sent to industrial traffic managers and commercial organizations, by the chairman of the Association of Western Railways, the forepart of this month, goes into detail of the car shortage situation this year. It gives good advice to shippers. It states: "The time is here

for the railways and shippers of the United States to begin active and energetic preparations to prevent a car shortage." . . . "The commercial organizations of the cities and towns can help greatly by urging their members to move all goods as early as possible." . . . "Shippers and consignees can greatly help themselves, the railways and all other shippers and consignees by loading and unloading all cars delivered to them as expeditiously as possible. Every time the loading or unloading of a car is needlessly delayed the available supply of cars is needlessly reduced. . . . Commercial organizations cannot render a better service to their members than by urging on them the need for prompt loading and unloading. . . . Shippers can help greatly by loading all cars to as near their capacity as practicable." Traffic managers of cement manufacturing companies are paying heed to the advice in this circular letter and are doing all in their power to cooperate with the railways.

Gold Williams, sales manager of the Marquette Cement Manufacturing Company, reported general conditions in the cement trade good and better than they were thirty days ago. That the demand is brisk and shipments satisfactory, and that there is a bigger consumption of cement than last year. Prices, which have steadily advanced in the past two months, are firm, showing a tendency to continue in the upward movement.

B. F. Affleck, general sales agent of the Universal Portland Cement Company, said: "Conditions in the cement market have continued to steadily improve, both in demand and in prices. Prices are strong out in the western territory particularly. Shipments are heavy, while stocks at mills are lower than last year at this time. At the close of this month the 'Universal' will have shipped one and one-quarter million barrels of Universal cement. The outlook for this fall's business is considered very bright."

J. U. C. McDaniel, sales and traffic manager of the Chicago Portland Cement Company, said: "Consumption of cement this year in the middle west is greater than in any previous year. Stocks in general at mills are lower this month than at the same period last year, but we are in the fortunate position of being able to ship cement the day after we get orders, irrespective of size. Prices are strong, demand is good and shipments satisfactory. Everything points to a good trade till the close of the season this fall."

E. L. Cox, general sales agent of the German-American Portland Cement Works, stated that they were shipping 15% more cement this month than last year and are declining large contracts. Conditions in the cement market are good, improving and an exceedingly brisk business may be expected to the close of the season this fall. Prices are strong and advancing. Stocks at mills are low, lower than they were last year in August. By the first of November the company will be in the clear at its mills. A threatening car shortage faces shippers this fall and they have notified dealers to stock up now and keep their bins filled as this shortage of cars is liable to commence shortly after the first of next month.

At the offices of the Lehigh Portland Cement Company conditions in the cement trade were stated to be excellent and improving with the approach of the fall season, which from all indications will be more active in demand and shipments than has been experienced for some years. The opinion was expressed that the consumption of cement this year was probably the heaviest the trade has had in years. Shipments are more than satisfactory, the demand is brisk and prices firm, with a tendency to reach a higher level. This company also is notifying dealers to stock up now, as a car shortage, certain to make itself felt early next month, may delay shipments, causing them inconvenience and loss when they need a good supply of cement for the fall trade.

## LOUISVILLE CEMENT NEWS.

Louisville, Ky., August 18.—Business is so good with the cement interests of Louisville and Kentucky that the unexpected has happened. What has hitherto been rated as beyond the reach of a miracle has come to pass—prices are stiffening. This feature alone is sufficient to guarantee the Bluegrass trade in its present assertion that 1912 is proving to be one of the biggest and best business years in history.

The cause for recent improvement in prices is to be found in the almost unprecedented demand of the season. The cement mills are handling orders for tens of thousands of barrels where they formerly counted their shipments by the thousand. Overtime work is necessary where every-day full-time

schedules formerly sufficed. Inasmuch as this pressure was forced upon the mills by building interests everywhere in the land of cotton, the mill-owners have taken up the cudgel of rightful self-defense and are making money in the busiest season of this or recent years.

Although there has been a great deal of rain in this section during the month just passed, the operations of the cement mills either in manufacture or delivery have not been interrupted. Several of the biggest plants have put night schedules in force and as fast as rock can be quarried it is burnt and marketed. The natural result of this state of affairs will be plant improvement and enlargement as soon as the mills are allowed to slacken their speed in fall. The output of cement this year in Kentucky will surpass any total hitherto known in the trade and it is reasonable to suppose that the manufacturers will equip their plants to take care of prospective increases in demand without crowding.

Disposing of an estate valued at nearly \$10,000,000, the will of J. B. Speed, pioneer business man and founder of the cement business of J. B. Speed & Company and the Louisville Cement Company, was admitted to probate in this city a short time ago. The instrument is dated June 14, 1910, naming W. S. Speed, son of the testator, and Fred M. Sackett, a son-in-law, executors without bond. Twelve hundred shares of Louisville Cement stock and half the testator's holding in J. B. Speed & Company are bequeathed to W. S. Speed, along with extensive other properties of the dead man. Five hundred shares of Louisville Cement stock and valuable coal securities are given to the testator's daughter, Mrs. Olive S. Sackett. A trust fund of \$100,000 is devised to Alice Helen Speed, daughter of W. S. Speed and grand-daughter of J. B. Speed. The major portion of Mr. Speed's estate is divided among the members of his immediate family who survive. In addition, however, he disposed of tens of thousands of dollars in bequests to charities and as remembrances to life-long friends. Henry S. Gray, secretary-treasurer of J. B. Speed & Company, is bequeathed 100 shares of Louisville Cement stock and \$10,000. The sum of \$2,000 has been devised to W. S. Speed to be distributed among the employees in the Main-street office of J. B. Speed & Company.

Current business with J. B. Speed & Company, according to that company's report, is flourishing. City Hospital deliveries upon an order of 25,000 barrels are still in force and the Louisville Railway Company is accepting deliveries upon its order of 10,000 barrels of Speed's cement to be used in laying the track for the new cross-town car-line. The feature of the season, in the shape of consumption of tens of thousands of barrels of cement in Louisville & Nashville Railroad construction through Kentucky, Tennessee and Alabama, is expanding nicely and the mills at Speed's station are crowded to capacity limit.

W. S. Speed, son of the late J. B. Speed, is taking his father's place in many ways in the Louisville business world. Mr. Speed was recently elected to the directorate of the Louisville Railway Company and to the board of directors of the German Bank, vacancies in both of these institutions having been left by the recent death of J. B. Speed. Henry S. Gray, secretary-treasurer of J. B. Speed & Company, recently returned from a short business trip to Chicago.

The Kosmos Portland Cement Company is particularly pleased with the strength evidenced in the market at present. Gratifying improvement in prices has developed during the month, according to C. M. Timmons, of the local Kosmos offices. Mr. Timmons is disposed to view the remainder of the busy building season with supreme optimism and does not anticipate harmful effects in this territory as the result of the inevitable political battle.

With orders for upwards of 50,000 barrels of cement on hand, supplying several of the big structural projects of this section, not to speak of a sizable volume of miscellaneous work, the Kosmos Portland Cement Company is not inclined to cail against the trend of trade. The Kosmos interests have contracted to supply the Selden-Breck Construction Company with cement for the gigantic concrete frame of the Starks building at Fourth avenue and Walnut street, a structure which will be one of the biggest and handsomest in the city. The company is also booked to furnish 30,000 barrels of cement to the Ohio River Contract Company at Heidelberg, Ky., where Ohio river improvements are being furthered under the direction of the government. About 10,000 barrels of Kosmos are also to be delivered for government work at Lock 13 in the Ohio river and the report of the local offices indicates that two or three more big jobs are ripe for the company and are to be announced within a month. In keeping with the busy state of affairs surrounding the Kosmos interests, the mills at Kosmosdale are running night and day.

Charles Horner, of the Kosmos Portland Cement Company, is expected to resume his duties at the local headquarters of that concern early in September. Mr. Horner is pronounced to have practically recovered from the severe illness which seized him last fall.

#### PHILADELPHIA CEMENT NEWS.

Philadelphia, Pa., August 16.—The Philadelphia office of the Atlas Portland Cement Company has been notified by the Panama Canal Commission that it will need at least 1,000,000 barrels more of cement under the contract for the constructive work of the canal. The original contract awarded to the Atlas company was for 4,500,000 barrels with an option given the government for an increase to 5,500,000 barrels.

An application has been made to the governor of Pennsylvania for a charter for a corporation to be known as the Star Portland Cement Company. The object is to develop cement, limestone and clay lands and the manufacturing of cement and other products.

The roasting department of the Bath Portland Cement Company was recently damaged to the extent of \$2,000. This is the first time in years that fire has crippled the plant.

According to the Whitehall Cement Company the increased price of cement does not seem to affect the sale of the material any, for since the raise in price the shipment from their mills have been the largest of the season. The cement is being shipped as soon as it is manufactured and seasons, the shipments being gauged by the ability of the mills to pack their products.

The Atlas Portland Cement Company is experiencing difficulty in securing men enough to start shafting at night. The recruiting is done from the Philadelphia office and it is probable that the company will follow in the steps of the Bethlehem Steel Works and call upon the Inasmuch Mission for the men.

Charles Straw, who recently resigned as mechanical superintendent of the Lehigh Coal and Navigation Company, to accept a position with the Atlas Cement Company, at Hudson, N. Y., was presented with a handsome silver service in appreciation of his services at the Lansford Club house, Lansford, Pa.

D. VanSmith, an associate of the South Eastern Lime and Cement Company, Charleston, S. C., and the double of Governor Woodrow Wilson, recently spent several days in this city as the guest of the Lehigh Portland Cement Company officials.

The contractors of Altoona, Pa., declare this to be a banner year for the construction of concrete buildings and that probably \$250,000 worth of work will have to go over until next year because the contractors cannot reach it. Besides two municipal contracts are being closed up this summer. One is the work on Lake Altoona, an expenditure of three hundred thousand dollars. The other is the three hundred thousand dollar street paving contract.

Nearly all the cement companies in the Lehigh district, Pennsylvania, have been compelled to advance their laborer's wages in order to keep them. The scarcity of labor is becoming very alarming since one company advertised recently for 2,500 men and had not more than 100 applicants. The orders on hand at present are so large that it will be necessary to send out representatives in search for men.

#### SAN FRANCISCO CEMENT NEWS.

San Francisco, August 12.—Cement production seems to be excessive at present, and some of the plants are temporarily closed, though some large orders have been placed lately. The Cowell Portland Cement Company has the contract for cement for the large dam of the Great Western Power Company, on which shipments are being made. The lowest bid for furnishing 200,000 barrels of cement for the lock of the Lake Washington canal at Seattle, Wash., was that of the Three Forks Cement Company, Trinidad, Mont., the figure being \$280,000 f. o. b. factory.

The Pacific Portland Cement Company has purchased the railroad from Auburn to the lime quarry of the Mountain Quarries Company on the American River. The cement company acquired the quarry some months ago. Agents of the company are now looking over the ground in that vicinity for other cement making materials, and it is reported that if they are found the plant will be moved from its present location near Suisun, Cal., to the vicinity of Auburn.

#### WORM SEES BRIGHT OUTLOOK.

In the August bulletin of the LaSalle National bank, Fritz Wörn, president of the German-American Portland Cement Company, LaSalle, Ill., noted a material improvement in all lines of business. "Bumper crops are practically insured," he said. "This means prosperity for the manufacturer and business man as well as the farmer. In Canada the demand for cement has been so great that the duty on foreign cement has been decreased 50 per cent. This has opened a new market for our cement and together with the greatly increased demand here, has tended to stimulate prices. The outlook for the cement trade this fall is most encouraging. Here at our own plant, with our new additions and improvements nearly completed, we are in a better position than ever before to supply the demand for 'Owl' cement. In almost all lines, only favorable reports are heard and nearly everybody is enthusiastic over the outlook for fall and winter business. Bank deposits continue to increase with a better demand for money—one of the best indications of prosperous conditions."

#### MILWAUKEE CEMENT NEWS.

Milwaukee, Wis., August 12.—Christ Johnson, of Oshkosh, Wis., has brought suit against the German-American Portland Cement Company of Illinois for \$1,925 damages, alleged to have been incurred by poor cement.

The Concrete Construction Company, of Milwaukee, has been awarded the contract for doing the cement work along the lake shore drive at Racine, Wis., for about \$10,000.

The Northwestern Steel & Iron Works, of Eau Claire, Wis., is meeting with unusual success in the sale of the Northwestern Cone Cement Mixer, which it is turning out at its plant. Orders are being received from all over the country.

#### HAD A RECORD MONTH.

In discussing with B. F. Affleck, of the Universal Portland Cement Company, the business conditions as they look today he stated that they had a record month in July. Their shipments amounted to 1,236,912 barrels, making necessary 6,923 cars for the delivery of same. If the sacks shipped in this order were laid down, end to end, they would reach from Washington to Fargo, N. D., and from Chicago to Cairo, Ill., making quite a little railroad line. His impression is that conditions are improving all over the country owing to the excellent crops and fine prospects for the year's business. The only cloud in the sky seems to be the absolute certainty of a car shortage.

On July 20, early in the morning, the storage and packing buildings of the Wolverine Portland Cement Company, at Coldwater, Mich., were destroyed. One storehouse, containing about 30,000 barrels, were destroyed and the contents ruined. During the day it rained and this added to the loss, much of the cement being exposed. The loss, it is estimated, will reach from \$60,000 to \$100,000. The insurance is \$15,000.

The Texas Railroad Commission, on application of the International & Great Northern Road, amended the commodity tariff on cement so as to give a rate on carloads, minimum weight, 60,000 pounds, for Harrys and Eagle Ford in Dallas county, to Texas City and Galveston, of twelve cents per hundred pounds. Rates at intermediate points are not affected. The order runs from May 15 to December 31.

#### SIDEWALKS THAT ADVERTISE.

Lacking a regular fund for concrete sidewalks from the village to the cemetery, the Ladies' Misionary Society of the M. E. Church at Cantril, Iowa, solved the problem by putting the name of the donor on each square of cement. The same plan was followed at Hope, Ark., by selling each outline block for advertising purposes. A few of the squares were reserved for data about the town, but the majority were used to exploit the dry goods and groceries of the village. Some advertisers furnished aluminum letters and numerals, but nearly all allowed the notices to be "printed" while the top coat was still fresh.

#### CEMENT ARMOR FOR SHIPS.

It is not new, and sounds foolish, does it not? And for all that it has been tried seriously on a 120-ton vessel. Remarkable to state, the experiment was first made by Italy, ten years ago. And more recently two engineers, Gabillini and d'Adda, have been at work along this line. They built a boat of 120 tons capacity, of cement, and arranged a collision between it and a good-sized iron vessel—the result being that the latter, only, was damaged. The cement vessel was made with iron ribs imbedded in reinforced cement layers, the whole being covered outwardly with cement, in which wire was imbedded.

The advantages possessed by the cement ship over the iron one consisted in the lessened weight and cost, and in its fireproof qualities.

As to the behavior of the cement against shot it is said (but on what authority it is not stated) that the former stood up as well as the latter, which is doubted.

#### NEW RULES FOR SIDEWALKS.

Springfield, Ill., August 21.—The movement for a change in specifications for concrete sidewalks in Illinois has just begun, but it promises to spread. It started in Decatur with economical city officials, as well as property owners who sought to get away from the expense of a gravel foundation. It had been provided that all sidewalks should have a foundation of eight inches of gravel. The new measure calls for two inches of gravel for walks five feet or less, three inches for walks five to eight feet, and four inches for walks wider than eight feet. The concrete body must be 3% inches thick and the top % of an inch. Quincy municipal authorities are revising their ordinance to reduce the cinder foundation. Peoria has fixed a minimum width of six feet for a walk.

Elgin cement contractors are so busy with cement work of all kinds they cannot start new jobs promptly, and in fact with little bidding being done.

Huntley has the distinction of having all cement sidewalks.

The White Hall Concrete Works, of White Hall, has been awarded the contract for building 12,000 square feet of walk at Hardin for 13½ cents a foot.

#### ARTIFICIAL STONE IN ILLINOIS.

The advance census bulletin of W. M. Steuart, chief statistician for manufacturers, shows that in Illinois in 1910 there were 366 plants for the manufacture of artificial stone, employing a total of 3,112 persons. Of these 473 were proprietors and firm members, 32 were salaried officers, superintendents and managers, 11 male clerks, 11 female clerks and 785 classed as wage earners. In June there were 1,040 wage earners at work, while in January there was a minimum of 369. The plants are capable of developing 1,111 horse-power. Capital of \$1,236,408 is represented in the industry, while the annual expenses are \$1,123,179. The value of the products for the year are \$1,488,299. Value of \$911,388 added by the manufacture.

#### RAIL HEADS TO STUDY CONCRETE.

Prominent United States railway officials have been appointed as reporters to note details of special steels and reinforced concrete and report it at the next meeting of the International Railway Congress, to be held in Berlin, Germany, in 1915. The reporters are President H. U. Mudge of the Rock Island and E. Randolph of the Southern Pacific in Mexico, C. W. Cushing, chief engineer maintenance of way, Pennsylvania lines, and Bridge Engineer C. H. Cartlidge, Burlington.

#### NEW FACTORY AT NEVADA.

Nevada, Ia., August 21.—The McElroy Cement Post Factories has opened a plant here, where a 2-story concrete building has been erected. The concern will manufacture cement posts, forms and reinforcing. Other factories operated by the company are at Polo and Stanwood. Nevada will be the headquarters of the company.

#### CEMENT MAN IS INJURED.

Champaign, Ill., August 21.—Hugo E. Lange, one of the proprietors of the Champaign Cement Block Factory, slipped and fell into a concrete mixer, seriously cutting his left arm.



IN THE LAKE COMPANY'S YARD.

Chicago, Ill., Aug. 20—Conditions among builders' supplies dealers continue as satisfactory as last month. Every yard in Chicago continues to handle a large volume of business and many more teams are employed to haul material to jobs than last year at this time. Building operations in all parts of the city continue active and it is believed will receive a fresh impetus early in the fall, which will tax the energy of the dealers to the utmost supplying material until the close of the season. The only complaint heard, both from dealers and contractors, is the ruling low prices which barely leave a living margin of profit, and which further, is believed, has had no influence in stimulating building this year.

"Too busy to talk and give you details," was the way one of the officials of the Wisconsin Lime & Cement Company answered the query how things were moving in the builders' supply line in Chicago. "Every one of our nine yards located in the three divisions of the city," he continued, "has found no let-up this month and is as busy as last spring. Conditions are good, everything is good but prices, they are lower than they have been for several years and the margin of profit is too small."

Fred Kraeckmann, vice-president of the Knickeckerbocker Ice Company, which operates some twenty and odd yards in different sections of the city, reported that all the yards were as busy delivering material to jobs this month as they had been earlier in the season. Conditions generally were good, leaving out the question of prices, which are too low for a reasonable margin of profit. Indications, he continued, all point to a very active business this fall.

The Lake Building Material Company, at 2144 West 47th street, was reorganized last June. Among its stockholders are leading contractors in this section of the city. Its new officers are: J. Colombiewski, president; B. F. Kowalewski, vice-president; Henry Reupre, secretary; James J. Elias, treasurer. The new company took over both yards, at Archer avenue and at West 47th street. The stock of M. A. Mueller and E. Withal, former officers, was purchased and they retired from the company. The capital stock of \$5,000 was increased to \$25,000. W. R. Lamoreaux, in charge of the office, reported no falling off of business in July and this month the company has added five extra teams for hauling of coal, which is handled at the 47th street yard. There is an increase in the erection of small buildings in this territory over last year. Volume of trade is at high tide and prices, which are at low ebb, show some improvement in cement.

Walter L. Woods, president of the Standard Material Company, stated "Building operations around here are as active as ever and there is no slowing down of business this month. Prices are the only poor element in otherwise good conditions. All indications point to a magnificent volume of trade in our line this fall."

The Tuthill Building Material Company, of 129-133 West Wentworth avenue, has taken over the yard at 16th and Ruble streets July 1, operated by the F. Schultz Lime Company. "Business is letting down some this month," said J. B. Tuthill, president of the company, "and the same conditions hold good in this neighborhood with building operations, but things look bright for business commencing with the fall season."

J. G. Coates, manager of Templeton Lime Company's yard at 354 West 59th street, reported that he was busy finishing up jobs this month, little new work coming in at present. "While things are slowing down," he said, "just now business for fall looks as bright as it was late last spring."

J. L. Lorschneider, vice-president of the Union Coal, Lime & Cement Company, at 5840 South Ashland avenue, reported business brisk but slowing down this month. This year, so far, proved very satisfactory in volume of trade, but prices poor and lower than previous years. Indications all point to an excellent fall trade. Building operations in this section of the city active.

"Business has not let down a particle this month," said Geo. T. Carpenter, dealer in sewer builder's supplies, at 41st avenue and Taylor street. "There is much more in sight this fall," he contin-

ued, "and I have all I can handle without selling to new trade. Wholesale prices of sewer pipe have advanced and retail prices are also advancing. The outlook in this line for good fall business is bright."

Geo. W. Park, president of the Chicago Clay Products Company, at the corner of 40th avenue and 24th street, who principally handle flue lining, coping and sewer pipe, reported a good steady demand for this product and believed indications pointed to good business this fall.

Astrid S. Rosing's building material yard, at 1128 Cornelia street, has all its teams busy and was obliged to hire a number to make prompt deliveries to jobs this month. H. A. Diestel, its manager, said, "Building operations are active in this section of the city and contractors all busy. Contractors, it is said, say if dealers did not give away cement, lime, etc., they would have just as much to do and leave them a living margin of profit. As the price of cement at the mills is going up," he continued, "dealers will be forced to abandon cut-throat competition which ruled in the beginning of the season. Volume of business is good and keeps up this month, but prices are too low. There undoubtedly will be a rush of business this fall, as usual."

A. H. Halleman, president of the Templeton Lime Company, at Homan and Grand avenues, reported they keep thirty teams going and busy on the west side—a larger number than they had use for last year. Contractors are all busy in this section of the city and are feeling good. Jobs commenced in the spring now finished, while new jobs are coming for the fall which will make business exceedingly active.

N. J. Druecker, of the N. J. Druecker & Co., 2634 North Artesian avenue, reported, "Business is finer than dandy; contractors around here are busier and feeling better than they have in years, complaining some, however, of low prices. Conditions are good and business this fall will be better than the early part of the season."

J. J. Croake Company, 2927 Fullerton avenue, has all the business it can comfortably handle. It reports building operations in this territory active and the outlook for fall bright.

Alfred Frerk, of Henry Frerk Sons, 3133 Belmont avenue, who make a specialty of supplying the plaster trade, said: "Plaster contractors were so busy a few weeks ago they could not get enough men. This condition is easing up some, but not for long as new jobs are plentifully springing up for the fall building season. We have been very busy since early spring and will be more so this fall if indications are reliable."

The Waukesha Lime & Stone Company, at Devon avenue and Sheridan road, reported business quieting down and expect this quiet time to continue until the middle of next month when building operations will take a fresh start for fall.

Morris Koch, of Koch & Lamb, 4601 Armitage avenue said: "We have been busy since last April. There is a great deal of building going on around here, but bad roads in the town of Cragin have checked it to some extent. Delivery of building material to jobs, on account of this condition, is difficult and annoying. The extension of the Armitage avenue street car line, from 44th to 51st avenue, this fall will help this territory around here much and stimulate more building next year. The outlook for our business is very bright."

T. M. Tobin, of the T. M. Tobin Bros. Company, neither have prices taken a turn for the better,



LAKE BUILDING MATERIAL CO.

9326 South Chicago avenue, said: "Conditions have not changed since last month. Business is as active now as it was then, there has been no let-up, which is the only untoward feature in the business."

The Calumet Coal & Teaming Company, at 9022 Commercial avenue, is doing much street improvement work in the South Chicago district. All of its yards are busy hauling material to jobs and show no indication that there has been any letting down of business this month.

C. D. Russell, manager of the E. C. Donnellon Lumber Company, reported an increasing demand for cement, lime, plaster and builders' supplies, which is handled at the 88th and Erie streets yard. It has all the business it can comfortably handle and has kept every team busy this month.

Hayden Ringer, of Ringer Bros., located opposite the Cheltenham depot of the Illinois Central railway said, "If we had double the number of teams we could keep them busy, but we cannot get them, every team in this town is working. There are many flats and residences going up around here; we are furnishing material now for a \$12,000 residence, and supplying one contractor with material who has contracts for twelve buildings. We can not get cement fast enough; cement companies are behind on their orders."

A. H. Hanson, manager of the Circuit Supply Company, 83rd street and Escanaba avenue, whose principal business is supplying the plaster trade, reported that contractors were very busy and requiring large quantities of U. S. Gypsum Company's and Grand Rapids Plaster Company's products. Business shows no letting down and a good fall trade is expected. The Undine-Hanson Company, with offices in the same building, contractors for cement and concrete construction work, have their hands full laying sidewalks and putting in foundations.

Geo. W. De Smet, distributor of Portland cement, American Keene cement, water-proofing compounds and De Smet compressed cement tile, with offices on the sixth floor of the Chamber of Commerce building, reports improved conditions in the trade this month. Prices are a little better and showing an upward tendency, while volume of trade continues good and is satisfactory, as it has been since early in the season.

#### LOUISVILLE RETAILERS.

Louisville, Ky., August 18.—That barometer of the building trades, the record of the building inspector's office, rose rapidly during the last thirty days, indicating indefinite continuance of fair weather for the constructionists. In fact, the barometric rise during July is unprecedented in local building annals. Only once before in the history of the inspector's office has there been a month during which more than \$1,000,000 worth of permits was taken out, and the month just passed eclipsed the former record total.

In July, 1912, \$1,060,000 worth of building was specified by Col. Robert J. Tilford, building inspector. Scores of permits were taken out by prospective builders, one of the biggest being that authorizing the erection of the Starks building, Louisville's newest and one of her largest skyscrapers. In July, 1911,—and it will be remembered that 1911 was the biggest building year prior to this one that the city has ever known—the total value of permits issued amounted to only \$615,670. The increase is nearly half a million dollars.

This state of affairs is making life a sweet song for the building supply men. The members of the allied trades are working overtime on all sorts of jobs, with the routine line of structural enterprises providing more concrete, roofing and paint work than ever before. The weather has been favorable from start to finish, for it has been just cool and damp enough to allow workmen to put in their "best licks," like the Hoosier Schoolmaster.

The Peaslee-Gaulbert Company, one of the biggest and best-known paint manufacturing and jobbing concerns in Louisville, is now handling Rubberfixt roofing, a standard product in the trade. Rubberfixt is sold by the Pee-Gee interests supplied with nails and cement free of charge and is making a hit in the Fall Cities. The aggressive policy of the Main street house in boosting its new line augurs notable success for the rubberized roofing hereabouts.

Samuel F. Troxell, president of the Samuel F. Troxell Company, has been busy with trips out in the state during the month. Mr. Troxell is handling several out-of-town projects which suffice to keep his force occupied all the time and the outlook for the season is pronounced to be beyond the possibility of unfavorable criticism.

Col. P. H. Callahan, president of the Louisville Varnish Company and well-known throughout the

allied building trades of the Bluegrass, is in Colorado at present, accompanied by his family. Col. Callahan expects to spend several weeks in the bracing western climate, while business runs at high tide with his company here.

"The general run of trade is holding up nicely and we have absolutely no cause for complaint," said L. M. Rice, Jr., president of the Central Paint & Roofing Company. "Our business to date is materially above normal and has been so since the first of the year, so that we are confident of increases of from 25 to 33½ per cent in 1912 as compared with the corresponding months of 1911."

New officers for the National Roofing & Supply Company have been elected. This action was necessitated by the death of Henry R. Snyder, who was president of the company for years, some time ago. Edward Streicher is the newly-elected president of the National Roofing & Supply Company. Mr. Streicher is one of the best-known men in the local supply field. William J. Reilly is vice-president of the company and E. V. Streicher has been elected secretary and treasurer.

Stress Reuter, of the Chicago offices of the Heath & Milligan Manufacturing Company, dealers in paints and building supplies, called at the Louisville headquarters of his company a short time ago. Mr. Reuter expressed himself as being delighted with the status of the Gateway City Heath & Milligan branch, which is introducing new lines to the Bluegrass trade constantly. The traveling men employed at the local house have again taken the road through Kentucky, Indiana and Tennessee, after a fortnight's vacation.

Eugene B. Dye, a prominent local dealer in roofing paints and papers, is delighted with the current influx of business from out-of-town retailers in Kentucky. Orders are coming freely from the retail trade of the Bluegrass just at present, said Mr. Dye, for the heavy rains of the month have necessitated a great deal of repair work and the up-state roofers are finding their time fully occupied. Mr. Dye recently returned from a fortnight's pleasure trip through the central part of the state, accompanied by his wife and daughter. The party toured the Bluegrass in Mr. Dye's touring car, which is a figure in the local motor world by reason of its use in by-gone days with Barney Oldfield, the speed demon. Mr. Dye proposes to put his theories of practical motoring to test in the installation of an auto truck in his delivery service in fall.

H. J. Craig, of the Sun Varnish Company, of this city, recently returned from an automobile trip through Kentucky and Tennessee with a party of friends. Mr. Craig reported constant increases in business at the Sun headquarters.

The work which the National Roofing & Supply Company is doing these days is notable in point of quantity and quality. One of the unique National jobs now in course of construction is the erection of a commodious reinforced concrete vault for the new Fidelity & Columbia Trust Company, of Louisville. The trust company, which boasts a capitalization of \$2,000,000, the largest in the South, is employing the National company to erect a concrete and steel vault 12 by 12 by 15 feet in dimension in its offices. Underground concreting in the remodeled Weissinger building on Fourth Avenue near Green street, which was destroyed by fire a short time ago, is also being done by the National forces and a handsome concrete stairway and facade for St. Bridget's Roman Catholic Church in this city have been provided. In the way of roofing jobs, the National has all it could comfortably accommodate. More than 500 squares of gravel roofing have been laid on the warehouse of the Tobacco Realty Company in Louisville. A similar job has been completed upon the grain sheds of the Bourbon Stock Yards at the eastern terminus of Main street and work is now under way upon a 1,000-square roofing job on the Administration and Agricultural buildings of Lincoln Institute, a colored school at Lincoln Station, Ky.

J. F. Kurfess, president of the J. F. Kurfess Paint Company, returned a short time ago from French Lick Spring, Ind., where he spent a short vacation.

Corr-Mesh, a light reinforcing material in sheets of standard length, is being featured by Thomas L. Barret, a prominent local dealer in contractors' and builders' equipment and supplies, water-proofing and so forth. The corrugated metal mesh is being sold by Mr. Barret in a wide range of work, all the way from use in solid plaster partitions, ceilings, furring, etc., to the erection of concrete roofs, floors and fire walls.

Peter Nicholas, a prominent local furnace contractor and dealer in building supplies, died at his home in this city a short time ago as the result of a long illness with a complication of diseases. He was sixty-four years of age and was a native of France, coming to the United States when a boy. After several years experience in

the trade, Mr. Nicholas came to Louisville and founded Peter Nicholas & Company, with which he has been connected since. He is survived by his widow and four children.

#### PHILADELPHIA NEWS NOTES.

Richard P. Bennis, Philadelphia, has the contract for the paving of 18,000 square yards of streets in South Bethlehem, Pa. The total cost of the work will be \$31,990.50. The contract was awarded after the longest session of the city council in its history.

The National Arch in Valley Forge Park will require twelve hundred tons of granite, six hundred tons of crushed stone, three hundred tons of sand with cement in proportion for the foundation and one hundred and fifty thousand bricks. This memorial, when completed, will be one of the largest in the United States.

The Trayler Engineering & Manufacturing Company, Allentown, Pa., has recently constructed the largest stone crusher in the world. This crusher is being erected at Valhalla, Pa., to prepare stone for the construction of the Kensico dam of the New York water supply system. The dam will contain more than a million cubic yards of concrete, consequently crushed stone will be needed in enormous quantities.

The Consolidated Coal & Clay Products Company, of Wilmington, Del., has been incorporated under the laws of that State, with capitalization of \$500,000. R. Boyd Cooling is the resident incorporator.

The Board of Directors of the General Asphalt Company have declared a dividend of one and one-half per cent (\$1.25) per share upon the preferred stock of the company, payable on Tuesday, September 3, 1912.

The Foster Paving Block Company, Bradford, Pa., has been incorporated under the laws of the State, with a capitalization of \$75,000.

#### PITTSBURGH RETAILERS.

Pittsburgh, Pa., Aug. 16.—Mid-summer business has increased over the spring trade. It is very noticeable in the sales of street materials. City street work is going ahead so fast this summer that all dealers have felt the bulge in demand from local contractors and are gradually getting out of the financial dumps. Borough work and contracts in the thriving industrial towns of Western Pennsylvania, West Virginia and Eastern Ohio are also adding much to the total of sales here. Road men report a big improvement in the general spirit prevailing among the retailers in these towns. Prices of street materials show little change. If anything the tendency is upward although very few changes in quotations have been made the past three months except in cement. Building in the city is not up to expectations taken as a whole. Warehouse building is above the average. So also there are a large number of churches, school houses and public buildings being erected. But houses, flats and stores are much in the minority. On this account there are some sections where retailers report building demand very slow yet. It is thought that there will be more house building this fall for with the total pay rolls of Greater Pittsburgh much the best they have been since 1907 the city is sure to fill up steadily and this will start house building once more.

The East End Builders Supply Co. says the city trade has been good the past two weeks. This applies especially to cement and paving brick. There is little doing with building contractors in that locality.

Miller & Coulson are almost discouraged. Reason—they can not get enough material to fill their orders. Their own plants in Ohio and in Butler county, Pa., are working full time but they are obliged to buy largely from other plants to keep up with their orders and it is here that they feel the strain. Last month was the best July they have had since 1906.

The Birmingham Supply Co. reports building not very brisk on the South Hills, but some improvement evident over May and June. Street work keeps them fairly busy and the demand for cement is such that it is hard to supply the trade.

The Beechview Builders Supply Co. also reports more street work than building. There is less building in that locality than last year. Lath are high and scarce, they say, and hemlock and spruce have the call with the builders.

The James H. McQuade Co. was refused an injunction against the City of Pittsburgh in the matter of the Cabbage Hill reservoir on the North Side. He was the lowest bidder but the contract was awarded to John F. Casey who is known as the "city contractor." Mayor William A. Magee is reported to have said that McQuade's bid was

"unbalanced." McQuade also was the lowest bidder by \$20,000 on the removal of the Hump a few months ago but the contract was finally awarded to Booth & Flinn, Limited, who are by far the best equipped of any firm in Western Pennsylvania to do the work speedily and satisfactorily.

The Pitt Construction Co. of this city has filed an action in assumpsit against the borough of Mars, Pa., in which it sought to recover \$12,472.49 with interest from February, 1912. It had the contract for paving Grand avenue in Mars and the suit arose from the failure of the borough councils and the plaintiffs in agreeing on a settlement.

Recent contracts awarded for street improvements in Pittsburgh went to the following:

Grading, curbing and paving with asphalt Grotto street, to Booth & Flinn at \$24,847.87; Thomas boulevard, to Barber Asphalt Paving Company at \$9,395.10; Hobart street, to Booth & Flinn at \$47,148.80; Devon road, to Booth & Flinn at \$4,074.50.

Grading, curbing and paving with blockstone, Grant boulevard, to Booth & Flinn at \$16,807.50; Hampshire avenue, to Nick Diullus at \$9,714.72.

Repaving with blockstone. South Twenty-fifth street, to the Thomas Cronin Company at \$1,585.58; South Eighteenth street, to Booth & Flinn at \$1,691.85; Colwell street to Evan Jones Sons Company at \$7,144.45.

Repaving with brick, Locust street, to Booth & Flinn at \$6,260; Elm street to the J. B. Sheets Company at \$2,176.40.

Repairing South Shore pier of the Tenth street bridge, to Adam Laidlow & Co., at \$7,389.79.

The T. A. Gillespie Co. of Pittsburgh has the contract from the West Penn Electric & Traction Co. for an immense dam and power house on the Cheat river in West Virginia. It will cost \$1,000,000.

Franck Manella of Pittsburgh has the contract for paving 8,000 feet of Railroad street in the borough of Roscoe, Pa., to cost \$16,000.

Pittsburgh's subway situation is gradually clearing up and it is likely that actual work on a subway will be started within a year by one of two companies. The Pittsburgh Subway Co., which is said to have splendid financial backing and which has been in the open market for a franchise for five years, is ready to go ahead when Councils say the word. The Painters Run Railroad Co., which is also after a franchise, has virtually accepted the provisions of the ordinance determined upon by Pittsburgh Councils and is also waiting final action on its plans.

Allegheny county now has about 390 miles of improved roads which are estimated to be worth \$7,611,991. At present 42 miles of road are under construction under the direction of County Roads Engineer John G. Gillespie and it is these projects which are adding largely to the sales of city retailers this summer.

The Columbia Construction & Engineering Co. of Pittsburgh, has the contract for resurfacing the National Pike from Washington, Pa., to West Brownsville, Pa. A large amount of stone is being used on the job. State Road Engineer Edward M. Bigelow is letting contracts every month for parts of the \$50,000,000 system of Pennsylvania roads that was provided for by the last legislature.

As showing that there will be plenty of street work in Pittsburgh till snow flies to keep retailers happy the following list of jobs was lately recommended for early letting by Public Works Director Joseph G. Armstrong:

Allen street from Warrington avenue to	
Climax street .....	\$5,500
Middle street from North avenue to Knoll street .....	2,800
Reed street from Pride street to Vine street .....	2,200
Rose street from Overhill street to Dinwiddie street .....	4,200
Tustin street from Van Braam street to Marion street .....	2,200
Harrison street from Forty-eighth street to Fiftieth street .....	8,500
Adelaide street from angle north of Camp street to Milwaukee street .....	3,200
Millvale avenue from Center avenue to Bridge street .....	8,400
Devilliers street from Center avenue to Rose street .....	3,000
Watson street from Van Braam street to Gist street .....	4,500
Fallowfield avenue from Broadway street to Sebring street .....	8,500
Total .....	\$53,000

One of the real big projects that has been hanging fire in Pittsburgh for years is the elimination of the Pennsylvania grade crossings in Homewood, East End, and Wilkinsburg. Councils are sure to soon pass one of two ordinances favoring the project the only wait being to see which better satisfies

(Continued on page 35)



There's true economy in using  
**"ALCA" LIME**

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A Combination of Calcium Aluminate  
 and Hydrated Lime

Quick hardening, highly plastic, non-staining.  
 Prepared with or without hair. Makes the  
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 interesting and instructive booklets.

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 is controlled by a mechanical device of perfect operation, the  
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**ALWAYS UNIFORM**

Always the same high quality. Prompt shipment guaranteed and made possible, as each mill is located within switching limits of the two greatest railroad centers of the West. You are assured of your orders being promptly filled.



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 WATERPROOF PAPER BAG  
 For Cement, Plaster, Lime, Etc.

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SAMSON CEMENT  
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BUILDERS' SPECIALTIES

# SEWER-PIPE

HOLLOW TILE  
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BLACK BANGOR AND  
SEA GREEN  
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ALL SLATERS' SUPPLIES

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Makes the most beautiful, distinctive and original surface for concrete work. It is unlike any other material and must be seen to be appreciated. If you want to do concrete work which will show a marked individuality, try this material. Sample sent on application.

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**INSPECTION CEMENT & REINFORCING STEEL**  
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## "Riverside" Plaster of Paris



is made from the best selected Nova Scotia Gypsum, and is the recognized standard in quality. It sets slowly, works cool, has great tensile strength.

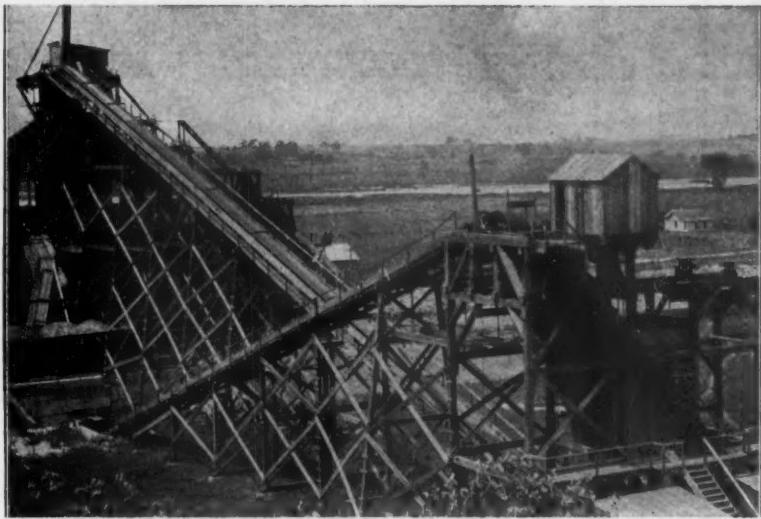
It is the lightest, the finest, a pure white in color, and absolutely uniform.

It has the greatest covering capacity and makes the hardest wall.

If you are interested in Finishing, Casting or Dental Plasters write for our "Riverside" Booklet. It tells how all Plaster of Paris is manufactured and why "Riverside" is the highest grade of Plaster made.

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381 Fourth Ave. - - New York City.

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THE NEW 3000-YARD PLANT OF THE JOLIET SAND AND GRAVEL CO.

Material is hauled from the bank and dumped into a track hopper at the lower left. An "S-A" Belt Conveyor carries from this hopper to the crushing plant at the right. The crushers feed another conveyor, which delivers to the screens at the top of the plant. Two "S-A" cylindrical dry screens, and eleven "S-A" Improved Gilbert Screens separate the material into the various sizes.

The August "Labor Saver" gives a complete description of this plant. Have you received your copy? Write us.

The Joliet Sand and Gravel Company has recently put another "S-A" Gravel Washing Plant into operation. This plant is now producing from 2500 to 3000 yards of material per day, which is a greater capacity than any other plant in the world. This company also operates three other gravel washing plants, all equipped with "S-A" Screens and Conveyors, and designed on "S-A" principles. We have two hundred "S-A" plants operating successfully in various parts of the country.

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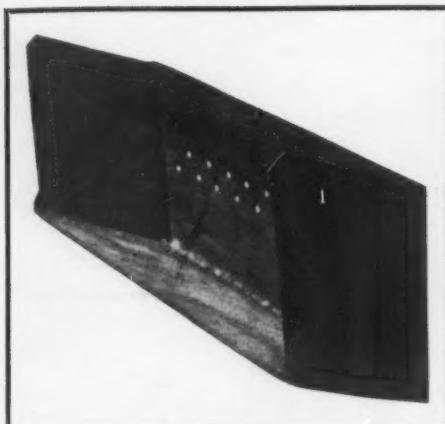
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PERMANENT and THOROUGH  
Water-proofing of Cement Work  
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SPECIFICATIONS AND SAMPLES  
ON REQUEST

**The Maumee Chemical Co.**

403 ST. CLAIR BUILDING  
TOLEDO, O.

Tell 'em you saw it in **ROCK PRODUCTS**

## ROCK PRODUCTS

(Continued from page 30.)

the residents of Homewood. The P. R. R. will have to raise its tracks at least eight feet and two or more bridges and tunnels will be needed.

Booth & Flinn, Limited, are rushing work on the Hump project and have Fifth avenue down to grade for two squares. Superintendent Andrew Farrell reports that he has had considerable trouble in getting laborers. The sidewalks are now being laid and the buildings on either side from Smithfield to Grant street are being or have already been adjusted to the new grade. The improvements and changes on the Frick building at Fifth avenue and Grant street will cost \$100,000. It is expected that travel will be resumed on Fifth avenue by August 20.

The widening of Dante alley to Grant boulevard is the next big downtown project that is likely to keep part of Pittsburgh's business section in a state of siege for months. It is strongly favored by Public Works Director Joseph G. Armstrong and will do much to help along the rebuilding of the city after the Hump is leveled off.

The B. & O. R. R. is getting ready to erect a \$200,000 terminal on the North Side in addition to its big city terminal in old Pittsburgh, plans for which have been approved. The North Side job will include the raising of Isabella street for several squares and the erection of a viaduct to get the tracks out of the flood levels.

The Hill Top Lumber Co. has been organized at Greensburg, Pa., by John W. Cunningham, Maurice V. Kenne, Mylo Culler, R. J. Ripert and L. C. Jeffries to do a general business in lumber and builders supplies.

The well known retail lumber firm of A. G. Breitweiser Lumber Co. on the South Side, Pittsburgh, has been reorganized as the Crown Lumber Co. It carries one of the heaviest stocks of any concern in Greater Pittsburgh, and has been in business under one title or another for more than 20 years. A. G. Breitweiser has withdrawn all connection from the company. A. P. L. Turner, a popular lumber salesman and buyer of Pittsburgh, is now a member of the company and will have active charge of its matters. He formerly was buyer in the South and Northwest for the Whitmer interests of Philadelphia and later has been connected with the W. P. Craig Lumber Co. and the American Lumber & Manufacturing Co. of Pittsburgh.

The firm of M. Simons Sons which has a big planing mill on Anderson street, North Side, and is one of the best known retail firms in the city, has moved temporarily to the plant of Schulze & Emanuel on North avenue, North Side. This is because its mill is being raised to conform to the new out-of-flood-danger grades.

At Uniontown, Pa., a new builders supplies firm is the Charles F. Eggers Co. The members are Charles F. and Alson C. Eggers, William H. Hammitt, Oliver W. Field and Carrie L. Boyd of Uniontown.

M. A. Leaham succeeds Herman Ross as manager for the Flood & Lowe Lumber Company at Farmersville, Ill.

William Ray Carle, 80 years old, formerly a retailer and later a brick and tile manufacturer, died August 9, at his home in Clinton, Ill.

The Schweitzer Contracting Company of St. Louis, has been incorporated with a capital stock of \$10,000 to do a general contracting business. Incorporators are Edward F. Wheelan and Henry Schweitzer.

Contract for furnishing the material for concrete side walks at Raymond, Illinois, was let to the Raymond Tile and Cement Company. All construction bids were rejected.

## ILLINOIS RETAILERS.

Springfield, Ill., Aug. 21.—Banner months in building permit records in the larger Illinois cities indicate the condition of the retail building material business. While it is agreed that the permits themselves are not accurate inasmuch as the real value of a building is seldom given, dealers are reflecting these optimistic figures. In Springfield, the total of \$274,875 is a record for July. Last year it was only \$160,255. Building Commissioner J. A. Schneider of Peoria, in the week of July 22-27 issued the \$148,800 in permits. He says this is barren of large job; it is going mostly into home and small business building constructions. The figures at East St. Louis were doubled. In July, 1912, they were \$181,109; in 1911, \$77,000. President Frank Keating, of the Builders' Exchange, says that the improvement in conditions is general. Nearly all contractors in that city are working full forces and both skilled and unskilled workmen are scarce. A total of \$180,495 is a new record for July in Aurora. Bloomington retailers are having difficulty in keep-

ing the different jobs supplied with material. Among the constructions jobs to be let soon is one at East St. Louis where the paving is ordered for State street to cost about \$290,000. The Springfield Park Board will do considerable paving in the parks. At Monmouth, weight blocks will be surfaced at a cost of \$15,768. Municipal paving contracts have been let as follows: Belvidere, Fair and Taylor, \$15,200; Monmouth, Burlington Construction Company, Burlington, Iowa, \$35,240; Rockford, A. E. Rutledge, \$15,847; Pontiac, R. Lobb & Son of Pontiac, \$11,700, and Jerseyville, James Maupin, \$50,000.

The new State Hospital for the Insane near Alton probably will be the biggest building job in the state to be let soon. It will cost about \$1,500,000. Plans will be finished soon by W. Carbys Zimmerman, State Architect, Steinway Hall, Chicago. Champaign has voted \$100,000 for a new high school. The new Masonic Temple at Rock Island will be readvertised.

The Farmer's Lumber Company has been incorporated at Brighton with a capital stock of \$5,000. The following officers have been elected: President, J. P. Brady, vice-president, V. I. Gillan, secretary and treasurer, Thomas Chamberlin. This makes two yards for Brighton.

The O. H. Paddock Lumber Company of Ohlman is furnishing the material for the new Catholic Church and parsonage at Ocoee.

J. N. Ross has sold his interest in the Flood & Lowe Lumber Company at Virden, and after thirty-three years as manager, will retire from business. He will be succeeded by J. G. Garratson of Girard.

The plan of Harry Osborne and others to start a new yard in Taylorville has been abandoned.

Ralph Wells and John Bloomberg are respectively secretary and vice-president of the retail business of Tibbits, incorporated at Sycamore. Heber L. Tibbs, who has been conducting the business alone, is president.

Dealing in cement and other building materials are among the objects of the newly incorporated Joliet Grain Company of Joliet. The capital is \$10,000, and the incorporators are John Coyne, John Finney, and Edward C. Hall.

The Baker lumber yards at Hettick and Palmyra have been sold for \$40,000 to the Alexander Lumber Company. The Baker firm still has yards at Modesto, Loami, Pawnee, Kincaid, Sicily, and Williamsonsville.

The Robert Anderson Lumber Company of Ashland, has purchased the yard of the S. R. Cornish Lumber Company at Tallula.

Vere Greenup, who has been manager for the J. C. Simpson Lumber Company at Augusta, has been placed in charge of the yard at Mendota. He is succeeded by George Menier of Walnut.

Charters have been issued by Secretary of State Doyle in this city to the following corporations:

Flexotile Floor Company of Rockford, capital stock of \$20,000, to do a general contracting and building business. Incorporators, C. E. Fort, S. C. Andrus, and J. E. Goembel.

H. G. Goelitz of Oak Park. Capital stock of \$10,000. To do contracting, teaming, manufacturing of street paving materials. Incorporators, G. S. Thompson, A. S. Lowenthal, and Frank C. Rogers.

The Shelby County Lumber Company of Decatur. Capital stock \$15,000, to deal in lumber, building materials, tile and coal. Incorporators, B. F. Huff, Van A. Coffman, and W. J. Huff.

The Madison County Mausoleum Company, of Alton. Capital stock, \$30,000. To build and maintain community mausoleums. Incorporators, Harry J. Fish, Frank F. Ferguson, and Eben Rodgers.

The contract for 45,000 square feet of roofing at St. Marys Academy, St. Marys, Indiana, has been awarded to the National Roofing Company of Edwardsville.

## SAN FRANCISCO RETAILERS.

San Francisco, Aug. 13.—The retail building material business is good in all parts of the Pacific Coast, though competition in some quarters prevents the full realization of the increased volume of business. Building is active, however, in nearly all parts of the country, and with heavy crops it is believed that more work will be done this fall than for many years past. In San Francisco, the total valuation of buildings started in July was \$2,452,725, which, except for last March, is the best month's record in three years. Los Angeles has had another record-breaking month, with a valuation of \$3,585,014, and values in Oakland, Sacramento and San Diego are above the average. Portland, Ore., also shows some improvement. Concrete is the principal material in some of the finest buildings now under way in Los Angeles, and is steadily gaining favor in San Francisco. Some

fine concrete residences are being erected near San Francisco, an example of which is that of Oscar Cooper at Hillsborough, a two story structure to cost \$30,000.

## NEW YORK RETAILERS.

New York, Aug. 14.—Quiet trading, interrupted occasionally by seasonable inquiries, is about the best the local building materials market can boast of during the past month under review. Some dealers are of the opinion the amount of business transacted during the past two months is below that for the same last year. The local real estate market is practically at a standstill and it is reported the loans are hard to negotiate. Complaints are made as to the difficulty encountered in making collections. July is one of the slowest months in the building materials line, and a general slackness in trading is expected. Dealers look for a large amount of business to materialize in the fall months.

William C. Morton, general sales manager of the Consolidated Rosedale Cement Company, had the following to say in regard to the local building materials situation: "While there have been no new developments to lend color to the situation, prices have continued firm and the demand for Rosedale cement has been sufficiently active to keep stocks from accumulating. We are not doing as good a business as we transacted a month or two ago and believe that the call for all building materials is slower than it was this time a year ago. Although this is the dullest time of the building season there are other factors to disturb the building materials market as the real estate market is very quiet and the loan companies have made it very difficult to secure loans. Dealers claim that the outlook for fall business is very bright."

E. B. Morse, of the Frank E. Morse Company, in reviewing the local building materials market, stated: "There was very little doing in the local market during the past month. Conditions have remained unchanged and the only thing of interest to occur was the advance of the price of cement to 70 cents, in bulk, at mill. The demand for cement was moderate, while the call for lime was fairly good. A good amount of wall plaster was taken and we are selling a fair amount of white Portland cement. The business outlook for the fall months looks very promising and we expect to experience a good amount of trading."

## SPRINGFIELD, OHIO, RETAILERS.

Springfield, O., Aug. 21.—Ray McIntire, Secretary of the Builders Exchange, is one of the members of the new Morningstar-McIntire Construction Company which has been formed to succeed the Hamm Construction Company. W. F. Morningstar is the new member.

The contract for the three story reinforced concrete International Harvester Building has been let to Clift Wise of this city.

## IOWA RETAILERS.

Davenport, Iowa, Aug. 21.—Louis des Cognets & Company of Davenport, have been awarded the semi-annual contract for cement and sand by the city.

A. S. Voss has purchased the yard of the Kint Lumber & Coal Company at Cedar Rapids.

The Burr Forbes & Sons' yard at Arisbie, has been sold to F. S. Coats & Son.

## WISCONSIN RETAILERS.

Madison, Wis., Aug. 21.—W. F. Pierstoff & Sons have sold their yard at Middletown to the Otter Lumber Company.

The Inter-State Construction Company of Saginaw, Michigan, has been granted permission to do business in Wisconsin with a state capital of \$1,000.

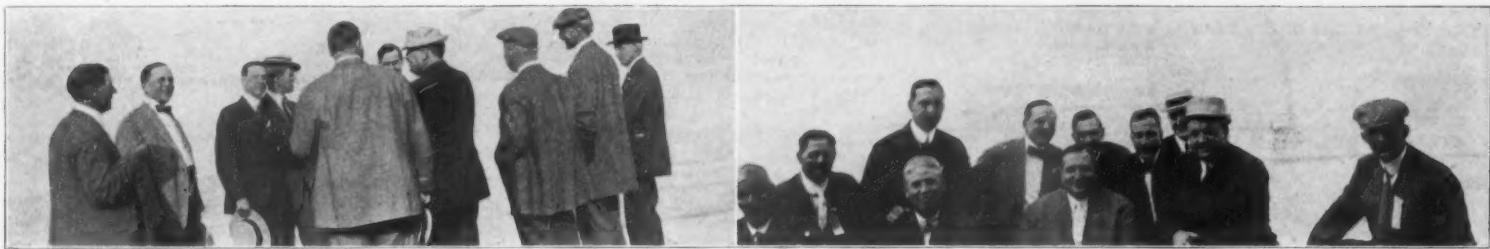
## FIRE AT DETROIT.

Detroit, Mich.—The Bartlett Supply Company suffered a complete loss by fire to their warehouse and barns at their Greenwood avenue yard. The warehouse was filled with cement, plaster and supplies, also the barn was considerably damaged, suffocating twelve horses. The total loss is estimated at \$25,000. Mr. A. T. Bartlett is having plans prepared to rebuild same at once.

The New England Builders' Supply Association, after a successful first year, held its second annual outing at Pemberton Inn on August 9. A very enjoyable time was had by all those who attended. A bounteous dinner was served and everybody voted that the association was a great success.

The Moore Lime Company, Springfield, O., is installing a hydrating plant.

# OHIO BUILDERS' SUPPLY ASSOCIATION



BILL FAY TELLING A TRUE FISH STORY.

The world has many shrines, many places that, in the minds of the elect, are sacred to certain ideals, or to the memory of great individuals or accomplishments; and to these shrines their devotees make periodical pilgrimages. The Ohio Builders' Supply Association established such a shrine some years ago to good-fellowship, the vital spirit of all effective association work, at The Breakers, Cedar Point, Ohio; and since that time it has been their custom to make annual pilgrimages to The Breakers, for the purpose of holding a summer meeting of the association and enjoying a royal good time in the general interchange of ideas and business and social courtesies. From the frozen wastes of the north to the burning sands of the south a more desirable spot than Cedar Point

## FRIDAY AFTERNOON.

Trip to Put-in-Bay and return on steamer Arrow, leaving Eastland Dock, 4:45 p. m., returning 9 p. m.

SATURDAY MORNING.  
Executive meeting, 10:30 o'clock.

SATURDAY NOON.  
Luncheon for all dealers and members,  
12 o'clock.  
Business session following.  
Address on Constitutional Amendment No. 9,  
to Permit Enactment of a Better  
Lien Law.  
Ladies will be entertained by trip on  
A. Y. Gowen's gasoline yacht,  
Spee Jacks.

There was a very good attendance and although



FIVE PERFECTLY LOGICAL REASONS WHY WIVES SHOULD ACCOMPANY THEIR HUSBANDS.

could hardly be found for the purpose, and for such an outing The Breakers offers every advantage of excellent management, beautiful location, and delightful environment. The idea of a pilgrimage may bring to mind crossing the hot sands with a caravan, in which camels play a conspicuous part, but on the journey to Cedar Point such a caravan is altogether unnecessary and it would be difficult to find one camel among ten thousand pilgrims.

The Ohio Builders' Supply Association held its seventh annual outing at The Breakers, Cedar Point, Ohio, Friday and Saturday, July 26 and 27, 1912. The official program was as follows:

**FRIDAY MORNING.**  
Executive and officers' meeting,  
10:30 o'clock.

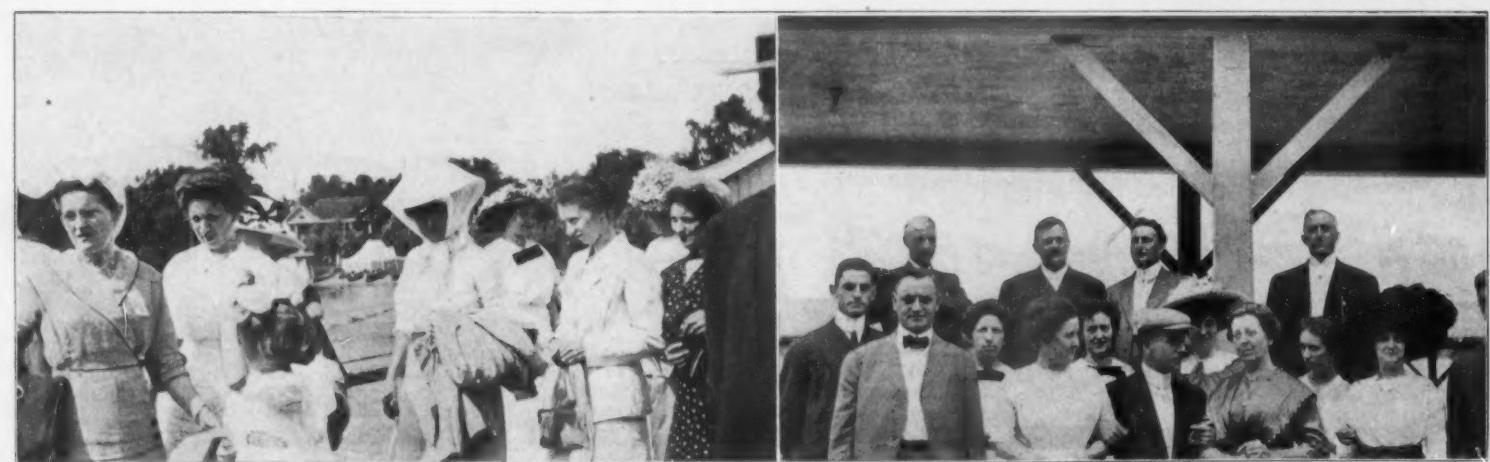
some regrets were expressed that more of the Ohio dealers were not present, there was very general enthusiasm in both the business and social sessions of the two-days sojourn at The Breakers. The association is doing excellent work and shows a healthy growth which bids fair to increase its usefulness. Since the annual meeting in February, twenty-seven new members have been added to the roll and under the efficient management of the officers, H. B. Arnold, president; J. C. Neely, secretary, and J. W. Thompson, treasurer, every effort is being made to make the Ohio Builders' Supply Association the most effective of its kind in America.

Cold weather and frequent showers detracted somewhat from the pleasure of the first day's outing and at one time the proposed boat ride to Put-

## THE TYPICAL BUCKEYE SMILE.

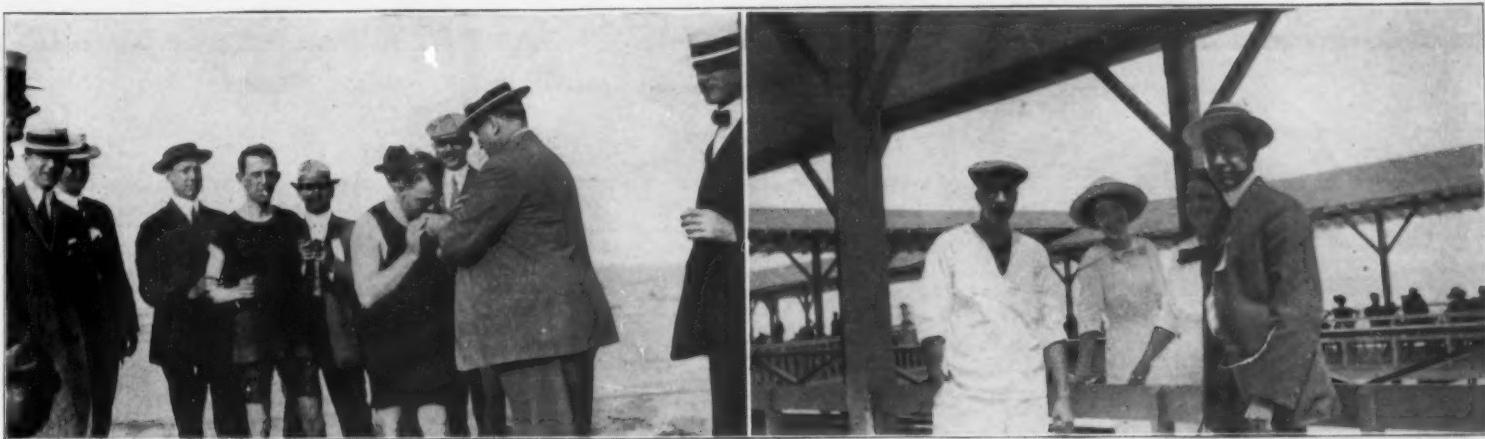
in-Bay seemed very dubious. The weather cleared in the afternoon, however, and although the bay was so rough that the steamer Arrow was unable to make the dock at the point and it was therefore necessary to cross to Sandusky, in order to get aboard of the Arrow, the whole jolly party defied the sea and enjoyed a very delightful trip to Put-in-Bay as the guests of the association. Although the water was rough and the boat rolled considerably, all the passengers were apparently good sailors and no serious casualties were reported. A thoroughly enjoyable supper was served at the Hotel Commodore, and as the sea had subsided and it was a beautiful moonlight evening the return trip to Cedar Point was in every way delightful.

The executive meetings in the mornings, both days, were largely for the purpose of perfecting arrangements for the two days' outing. The luncheon, the second day, served at The Breakers, was a credit to the cuisine of the hotel, and was thoroughly enjoyed by over a hundred members and guests of the association. Immediately following the luncheon the gentlemen went into business session while the ladies were taken for a delightful trip on Mr. A. Y. Gowen's handsome yacht, the Spee Jacks, which is generally conceded to be the speediest craft in her class on the Great Lakes. It was an ideal afternoon for a trip on the water, the ladies enjoyed every moment of it, and returned late in the afternoon, enthusiastic in their praises of their host, Mr. Gowen, and his beautiful yacht, the Spee Jacks. The business meeting, after luncheon, Saturday afternoon, was attended by all of the dealers, and many of their guests. The principal subject for consideration was the ninth amendment to the Ohio constitution, providing for the passage of more satisfactory lien laws. The subject was ably presented by Mr. Klump of Cleveland. After his address, which is published here-with, the meeting was opened for general discussion, and Mr. F. H. Kinney of Cincinnati, Mr. McCammon of Cincinnati, W. A. Fay of Cleveland, D. K. Thompson, Jr., of Columbus, A. R. Black of Port Clinton, and others, spoke forcibly in favor of the amendment. A telegram was read from Mr. Frank Hunter of Columbus expressing his regret that he was unable to attend the meeting, and on motion the secretary of the association was instructed, by unanimous vote, to wire Mr. Hunter that he was missed by the association and his absence was deeply regretted. On a motion, made by Mr. McCammon of Cincinnati, and unanimously carried, a vote of thanks was tendered to the officers of the association for their careful attention to all details of the arrangements, and for the excellent



A STROLL AFTER LUNCHEON.

SOME OF THE MEMBERS AND THEIR LADIES.



PRESIDENT AND SECRETARY IN THE HANDS OF THEIR FRIENDS.

A UNIVERSAL QUARTETTE.

weather, all of which had contributed to the unqualified success of what all present enthusiastically endorsed as one of the most delightful and beneficial outings ever enjoyed by the Ohio Builders' Supply Association.

President H. B. Arnold responded. He thanked the association for its kind commendation, stated that the officers had made an effort to secure the attendance of an unprecedented number, and expressed his regret that more members were not present. He assured the association that the officers would continue to push the association work, and urged each member to suggest any work that might be successfully undertaken by the officers for the good of the association.

Secretary J. C. Neely also thanked the association for the resolution of appreciation and gave a brief outline of the work and growth of the association since the last annual meeting. Mr. Neely stated that the next meeting of the association will be a strictly business session. The place for holding it was considered and the advantages of Toledo, Columbus, Cleveland and Cincinnati were commented upon at some length, but the matter was finally left open and the members of the association will be notified of the time and place of the next meeting by the secretary.

Some stay-at-home merchants and pessimistic association members seem to have the idea that unless an association devises some means of evading the Sherman act it really is not accomplishing anything. Association, however, like virtue, is its own reward, and the greatest benefits derived from association work are found in the mere fact of close commercial and social intercourse, that is, in association. When a member of aggressive enterprising business men, all engaged in the same industry, get together socially, with their feet under the same table, the petty things of business life are forgotten and there comes such an opportunity to consider, in a broad gauged manner, the big problems of the industry, as could never be found in a strictly business environment in which the element of selfish personal interest is unavoidable. When a bunch of men are stripped to their bathing suits most of the bluff and illusion are left with the tailor-made adornments; and as they get close to nature, they also get close to one another, so that a man to man and heart to heart interchange of opinions, ambitions and ideals is the result. If every merchant could live in this manner for a few days with his best hated competitor, he might

find him to be a man of much higher character and much less of a piker than he had previously supposed. The fostering of good fellowship in any industry makes the adoption of uniform methods, customs and practices comparatively easy, and reckless, cut-throat competition comparatively rare. The Ohio Builders' Supply Association is to be highly commended therefore for its very successful and enjoyable annual outings. They have the right spirit, and are of inestimable value to the trade.

#### THE LIEN LAW.

(Address delivered by Mr. Klump at the Ohio Builders' Supply Association's convention, Cedar Point, on Lake Erie, July 27, 1912.)

Gentlemen: I feel that the first thing that I ought to do is to offer an apology for allowing myself to be sent here as a speaker, because I can assure you that I am not a public speaker. The gentleman who was to have spoken here is Mr. Henry A. Conlin, secretary of the Ohio Lumbermen's Association. Mr. Conlin is an attorney from Toledo, and you all know that there are two things which an attorney can do. One is to talk your head off and the other is to send you a good-sized bill for his services in doing this.

However, I am not going to go into a lengthy talk about the opportunities and necessities for a new lien law, for I think it goes without saying that every material supply dealer appreciates the necessity of a suitable lien law to protect us against rascality and incompetence, and I think there is no reason to argue this necessity.

I am going to talk a few minutes and tell you what the Ohio Retail Lumbermen's Association has done, and as your chairman said, what we have got to do in the future and in what way we must ask you to help us.

The Lumbermen's Association of the state of Ohio has been in very restless condition of mind for some time past and I believe that you gentlemen, as material supply dealers, have been in the same way.

We find that we are doing a very good volume of business, but we also find that our overhead expense is growing at an alarming rate and that this is largely caused by legislative matters. For instance, taxes in Cleveland have doubled, the state of Ohio through legislation recently passed taxes us on our capital invested, and the United States also taxes us on our income if it exceeds \$5,000. And by the way, if any of you here are connected with private institutions and not incorporated, you will no longer escape these taxes, for I see that the United States Government at Washington has put these taxes on all partnerships and private parties engaged in business.

Now we do not object to these things at all, but we have to be able to make money to pay them, and the next thing is to collect the money after it is made. The lumbermen of the state of Ohio met in Columbus, I think in December or January, and we spent a very interesting afternoon discussing these problems, and formed an organization which is in the future going to watch legislative matters and of course use our efforts against anything that we feel is detrimental to business.

I regret that this organization has been made a purely lumbermen's affair, and that you builders' supply people are not organized for the same purpose.

Our organization has naturally been paying a good deal of attention to the constitutional amendment No. 9, relating to the lien law. As you all know, we had a lien law passed somewhere back in the '90s, which was, however, declared unconstitutional. Therefore, we had no hope of a new lien law until the constitution could be changed, which is now to be done. The recent constitutional convention at Columbus has proposed forty-one amendments to the constitution of the state of Ohio, which will be voted on next fall. The most important matter which has come before every voter in the state of Ohio is the opportunity to vote on these forty-one amendments.

There is only one which particularly interests us, and that is the amendment to the lien law. We started to work in about January with the constitutional delegates on this proposition. A great many of the dealers felt there was no need of doing this. No less a personage than one of our prominent ex-lieutenant governors told me that he did not think there was any more chance to change the constitution in this respect than there is of stopping Niagara. But we worked for sixty days, with the final result that our lien law proposition passed by a vote of 103 to 6. So you can see that the delegates to the constitutional convention, after listening to our arguments, were convinced that a new lien law was a good thing, and the clause regarding this law reads as follows:

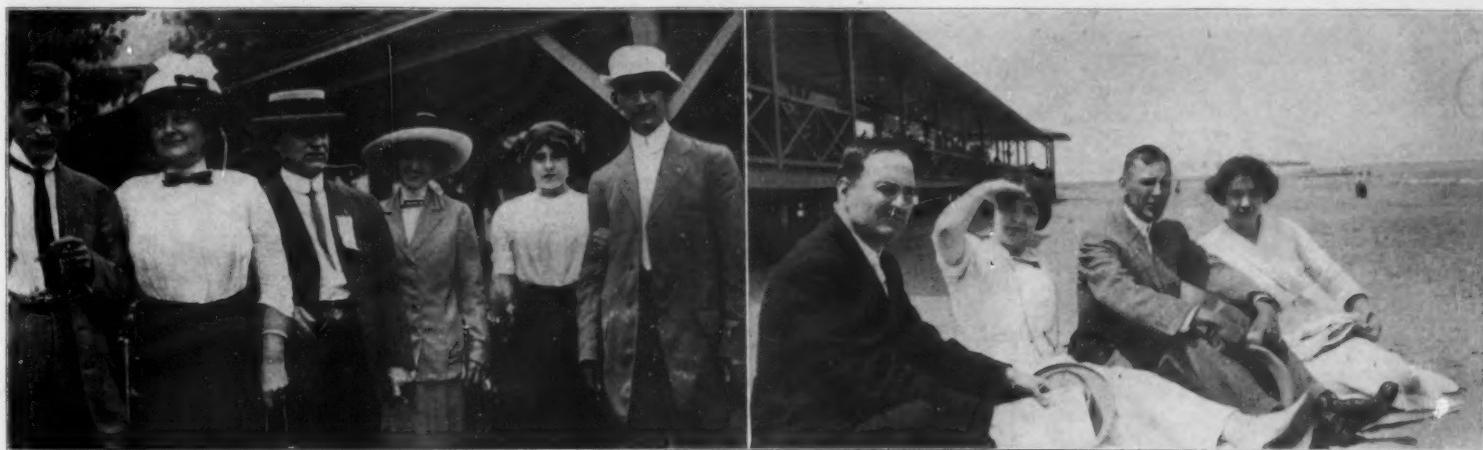
"Sec. 33. Laws may be passed to secure to mechanics, artisans, laborers, sub-contractors and material men their just dues by direct lien upon the property, upon which they have bestowed labor or for which they have furnished material. No other provision of the constitution shall impair or limit this power."

All the work that we have before us is to have this clause passed. Perhaps you all know that on September 3 they vote all over the state of Ohio on the acceptance or the rejection of these constitutional amendments, and they vote on every one separately, so it is possible that this one amendment may be passed and the other forty may be defeated. It is very difficult to judge what the outcome is to be. When you talk with one side they say that every one will be defeated, while others are equally certain that each one of the amendments will be carried.

There is great influence being brought to bear to cause the defeat of the whole thing. There is one large manufacturer in Canton who is particularly opposed to some of the labor planks, and he is raising a large fund to defeat all of the amendments, although he has said that he is going to vote for the lien law. He is afraid, however, to take up and argue on single clauses.

Now we can pass this lien law amendment if the manufacturers and dealers will get together. The Lumbermen's Association is fathering a campaign for this purpose and we want you to join in and help. We are going about it in this way. We have placed matters in the hands of three men connected with our organization and they are going to ask the dealers in every town and city of the state to name a night, at which time they will agree to get all the material supply dealers together, and then a delegate will be sent to address them. Of course it takes money to support a campaign of this sort. The way we expect to get this is to ask for voluntary contributions at the time of these meetings.

We expect that every material supply dealer in the state will not only go to the polls on the day of the



"WE ARE READY NOW—SNAP IT."

LIFE IS BURDENOME ON THE BEACH.



A GENERAL VIEW OF THE O. B. S. A. MEMBERS

election, but that he will send his employees to vote also.

I do not know whether you have all seen a copy of the ballot, but I have had expressed to me here plenty copies for all of you, and there is a little circular being circulated around the state that gives every one of the constitutional amendments and shows you how the ballot will be made out. You will find that our amendment is No. 9 and that we have a chance to vote Yes or No. I think that every material supply dealer in the state will receive, just prior to the election, a little slip showing just amendment No. 9, so this can be handed to every man in the employ of the dealers and your employees can thus be shown just what amendment you want them to vote for.

I sincerely hope that everyone will unite in our effort to pass this amendment No. 9.

Secretary Neeley addressed the meeting as follows:

Gentlemen: Mr. Arnold was elected president of this association in January and I was elected secretary, and we also had elected with us a very able executive committee. We decided at that time, at a meeting at the Algonquin hotel, to strengthen our organization in regard to membership. We had several meetings, one in January, one in February, one in March and also in June. At our February meeting we decided to offer to the dealers of the state of Ohio a free membership until July 1, providing they would become members of this organization after that, and with the help of Mr. Arnold's letters we were successful in obtaining 27 new members. I am not taking any credit for this, as this result was mainly due to Mr. Arnold's efforts, but I am greatly gratified, especially as it is a greater gain that we have made in the past three years, and we have also succeeded in holding all our old members, with one or two exceptions. A few of our members, it is true, are slow pay, but I think they will come across this year. This is just a beginning, and we want to continue, and, as I said in Dayton, I want you all to help us.

We have a great opportunity before us in this constitutional amendment No. 9. We can not afford to overlook it. You all know what trouble the old lien proposal has caused us.

The manufacturers, also, are interested in this just as vitally as we are. If the dealer gets his money the manufacturer is also sure to get his. It falls upon the manufacturers and their representatives to have this proposal No. 9 passed.

My understanding of the proposition is that if we have a majority of the votes cast for this proposal it will be carried. You have just had it impressed upon your minds that Mr. Klump and his organization are going to furnish literature. We can not vote for and carry it ourselves. The general contractors are going to work against this proposition. We must have the help of all.

In regard to membership I only hope that you will all help Mr. Arnold and myself, and the executive committee to increase our membership. We want all the members we can get.

I am very sorry that we have not had a better attendance. It is very discouraging. It seems to be the hardest thing in the world to get members to attend conventions. The manufacturers are here to entertain you, and their salesmen are also here to entertain you. We should have had 200 people instead of only about 125.

Mr. Gowen is entertaining the ladies, and I know there is no one better able to do so than he. We had hard work to get 51 together to take the Put-in-Bay trip yesterday.

These meetings mean a lot to the manufacturers and their salesmen. They can meet more dealers here than they can in two or three weeks traveling around the state.

We have got to do something. I am sure you all appreciate the protection our organization affords us. Where would we be if we had no organization?

Even though our membership is small I believe it will

be equal to the Lumbermen's Association by January 1. I happen to know what their membership is, as their president lives in Canton, and I believe we can have a membership equal to theirs. And we are only about half as old as they are. There are in the state of Ohio 710 dealers whose credit rating is good and out of these we have only about 125.

You salesmen when you get around the state can also help us.

#### Additional remarks by Mr. Klump:

I just want to say that Mr. Neeley's remarks have put something into my mind which you ought to know. Amendment No. 9, as he says, will be carried by a majority of the votes cast on this particular amendment only. If there are only 1,000 votes cast for it, 501 of these votes will carry it.

There is also going to be opposition. The chief opposition will be from the dead-beat contractor. In Cleveland we have a list of contractors of somewhere between 800 and 900 and I venture to say there are not to exceed 70 of them whose credit is absolutely good.

The Building and Loan Associations of the state are also going to work against it.

I have in my possession a few figures with which your Mr. Rossiter is also well acquainted. We endeavored to find out just what the amount of the past due accounts of the material supply dealers in Cleveland is, and I believe if I would ask you to guess what that amount is there would not a one of you come within 50 per cent of the correct figure. Nearly \$700,000 of past due accounts are owing in the city of Cleveland alone. The losses to Cleveland material men each year is somewhere between \$100,000 to \$150,000, and the losses throughout the state must amount to nearly \$2,000,000 each year.

#### Surf Notes.

P. A. Jandernal, of the Lehigh brigade, was dressed like a yachtsman and acquired a well deserved reputation as a handy man on the excursion to Put-in-Bay.

James W. Smith, of the River City Lumber Co., Portsmouth, Ohio, when last seen was making a desperate effort to hang on to the rope. For further particulars ask Mr. Smith.

F. A. Sarstedt, of the Cleveland Macadam Co., sometimes known as The Little Brother of the Rich, is a new member, who is rapidly learning the ritual.

B. W. McCausland, Jr., sales manager for the United States Gypsum Co., big and smiling, as ever, was very busy on the entertainment committee.

B. F. Andrews, of the Lehigh brigade, was especially popular with the little folks, and always on the lookout for them.

Arthur R. Black, of the American Gypsum Co., didn't care much for the Lake Erie surf. His idea is that a real bath should be in a lake of champagne.

The man who was most conspicuous for aquatic feats and swimming stunts was Col. W. E. Veits, assistant treasurer of the Lehigh Company.

E. M. Koch, of the Universal Portland Cement Co., dressed like "Willie off the yacht," was very busy taking parties for short trips on his cosy, comfortable launch, which is ably commanded by his charming wife.

E. A. Gale, of the Wabash Portland Cement Co., was suffering from an attack of indigestion.

Messrs. Roche & Schmutz, of Crescent fame, dressed in bathing suits, gave a realistic and highly appreciated impersonation of "before and after taking," or, "through thick and thin."

H. M. Scott, assistant sales manager of the Lehigh Company, also known as "Little Brother," was suffering from a severe cold.

A. H. Gallagher was one of the absentees who was greatly missed. Illness in his family made it impossible for him to be present.

Chas. Shaffer, of Dayton, respondent in a beautiful white suit, was very conspicuous among the few gentlemen who went to the dock to meet the ladies, after the yachting trip.

Chas. F. O'Donnell appeared to be a trifle pensive and sad at times; several of his shipmates were not on deck.

#### THE ATTENDANCE.

S. E. Grant, Circleville, O.  
W. Maddox, Xenia, O.  
Wm. H. Ortman, McGillroy & Ortman, Dayton, O.  
O. H. Himmibright, U. S. G. Co., Piqua, O.  
J. F. Hunter, The F. Hunter & Sons Co., Columbus, O.  
G. A. Talst, Woodville Lime & Cement Co., Toledo, O.  
Chas. F. O'Donnell, Buckeye Portland Cement Co., Bellefontaine, O.

E. Ray Albaugh, Logan County Lumber Co., Bellefontaine, O.

L. E. Fishack, The Fishack Gypsum Co., Toledo, O.  
E. W. Barrows, Kelley Island Lime & Transport Co., Cleveland, O.

B. L. McNulty, Mitchell Lime Co., Chicago, Ill.  
Frederick L. Beard, Michigan Gypsum Co., Grand Rapids, Mich.

J. O. Neeley, Neely & Farrel, Canton, O.  
A. E. Yode, Orrville, O.

J. W. Smith, The River City Lumber Co., Portsmouth, O.

H. E. Holland, Woodville Lime & Cement Co., Toledo, O.  
F. R. Childs, New Lexington, O.

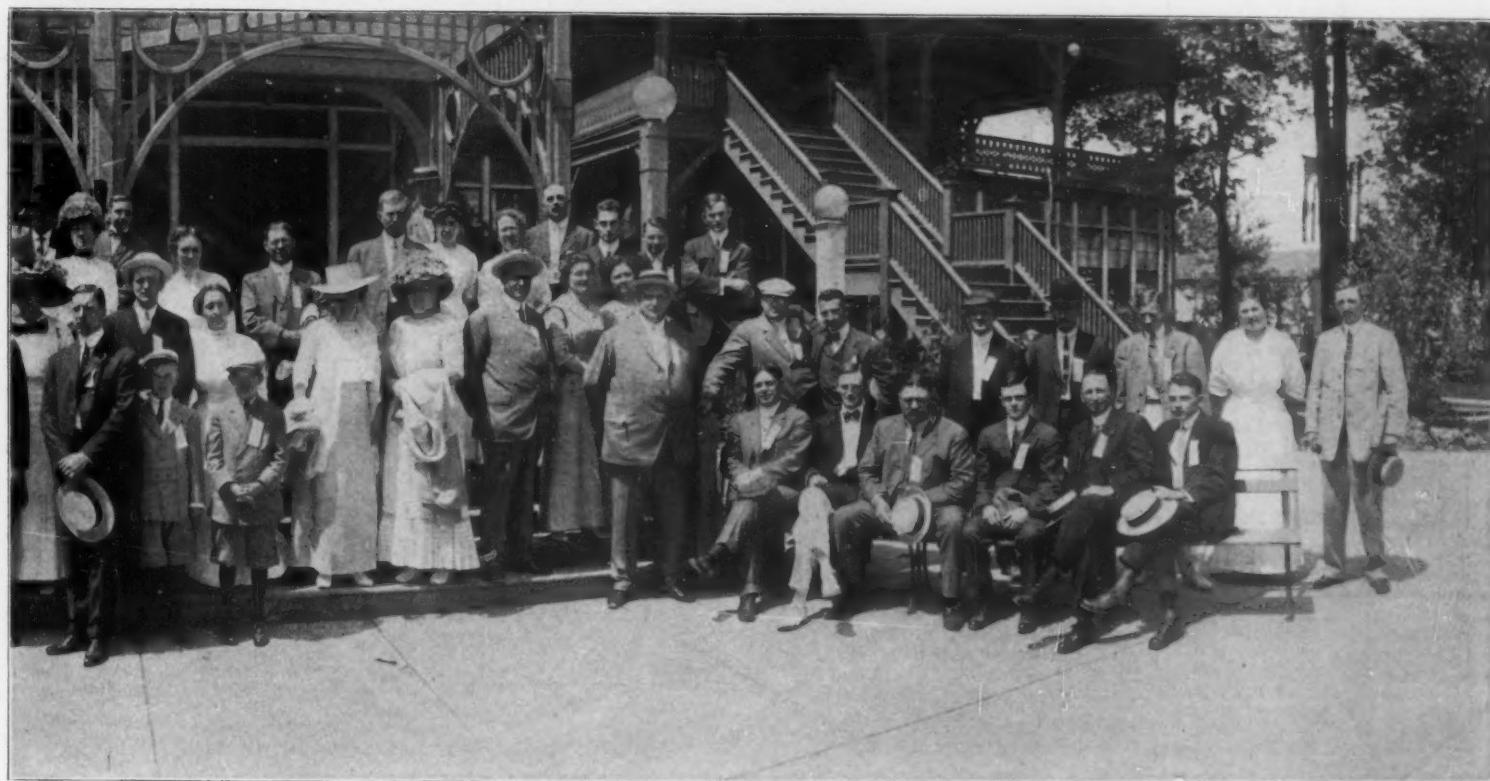
J. W. Windsor, Houston Bros., Pittsburgh, Pa.

Burdle Anderson, ROCK PRODUCTS, Chicago, Ill.

Geo. Hesse, Jr., The American Gypsum Co., Wheeling, W. Va.



FRANK K. HOLLAND AND FAMILY.



AND THEIR FAMILIES AT THE BREAKERS.

T. E. Pook, American Sewer Pipe Co., Akron, O.  
B. F. Andrews, Lehigh Portland Cement Co., Chicago, Ill.

E. C. VanEpps, American Gypsum Co., Pt. Clinton, O.  
John Jauch, J. Rapp & Co., Columbus, O.  
E. A. Gale, Wabash Portland Cement Co., Detroit, Mich.  
A. A. McConnell, The Ohio & Western Lime Co., Jackson, Mich.

Chas. Schmutz, Crescent Portland Cement Co., Youngstown, O.  
W. A. McCall, Dealers' Record, Chicago, Ill.

J. W. Thomson, A. H. Thomson & Son, Coshocton, O.  
O. H. List, Kelley Island Lime & Transport Co., Cleveland, O.

C. D. Laile, New Castle Portland Cement Co., New Castle, Pa.  
F. H. Kinney, Hyde Park Supply Co., Cincinnati, O.  
W. H. Kerman, American Gypsum Co., Port Clinton, O.  
P. A. Jandernal, Lehigh Portland Cement Co., Chicago, Ill.

F. P. Rushey Builders' Supply Co., Lima, O.  
Arthur R. Black, American Gypsum Co., Pt. Clinton, O.  
Thos. W. Johns, U. S. Gypsum Co., Cleveland, O.  
Howard Wood, Builders' Supply Co., Dayton, O.  
Chas. A. Gross, The Gross Lumber Co., Bellevue, O.

W. F. Powell, The Atlas Portland Cement Co., New York, N. Y.  
D. A. Christian, The John D. Owens & Son Co., Marion, O.

Edw. C. Swessinger, The Kelley Island Lime & Transport Co., Cleveland, O.  
J. O. Adams, Coshocton Lumber Co., Coshocton, O.  
E. G. Klotz, The Fishback Gypsum Co., Toledo, O.  
Leo B. Woodworth, Universal Portland Cement Co., Pittsburgh, Pa.

J. R. Paul, Ironton Portland Cement Co., Ironton, O.  
R. E. Wagner, Wagner Bros., Mt. Gilead, O.  
R. E. DeVille, The Ohio Builders' Supply Co., Toledo, O.  
H. E. Hendrick, Scioto Lime & Stone Co., Delaware, O.  
Chas. W. Schaefer, Schaefer & Gangwayne, Dayton, O.  
C. A. Owens, John D. Owens & Son Co., Owens, O.

F. C. Roche, Crescent Portland Cement Co., Wampum, Pa.  
E. M. Koch, Universal Portland Cement Co., Pittsburgh, Pa.

W. O. Holst, Holst Builders' Supply Co., Toledo, O.  
F. B. Jours, Acme Builders' Supply Co., Toledo, O.

J. M. Sheridan, The Sheridan Stucco Retarder Co., Toledo, O.

G. K. Faist, The Woodville Lime & Cement Co., Toledo, O.

G. H. Tuhoff, The S. M. Cole Co., Oberlin, O.  
A. B. Hayes, The Robinson Clay Co., Akron, O.

A. J. Clementz, The Greer Beatty Clay Co., Mongolia, O.  
W. H. Greer, Mongolia, O.

J. H. Batey, Ohio Plaster & Supply Co., Steubenville, O.

J. Hughes, P. Smith Sons Lumber Co., Newark, O.  
H. Hughes, Evans Supply Co., Newark, O.

Henry Angel, Cleveland Builders' Supply Co., Cleveland, O.

W. A. Fay, Cuyahoga Builders' Supply Co., Cleveland, O.  
M. D. Lucas, The Stowe-Fuller Co., Cleveland, O.

Chas. Duley, Loudenville, O.

Harry W. Caton, U. S. Gypsum Co., Cleveland, O.

B. W. McCausland, Jr., U. S. Gypsum Co., Cleveland, O.

L. G. Love, Crescent Portland Cement Co., Mansfield, O.

W. T. Rossiter, Cleveland Builders' Supply Co., Cleveland, O.

A. Y. Gowen, Lehigh Portland Cement Co., Cleveland, O.

F. A. Sarstedt, The Cleveland Macadam Co., Cleveland, O.

D. K. Shannon, Columbus Builders' Supply Co., Columbus, O.

Walter Locher, Bluffton Cement Block, Bluffton, O.

E. H. Curtis, Clinton Metallic Paint Co., Syracuse, N. Y.

Edw. Savage, care Geo. W. McCammon, L. H. McCammon Bros., Cincinnati, O., and Sandusky, O.  
L. C. Kelley, Kelley Plaser Co., Sandusky, O.  
Fred C. Bishop, Centerburg, O.  
W. K. Evans, Sandusky Portland Cement Co., Toledo, O.  
C. E. Mesmore, Centerburg, O.  
J. A. Baird, Coshocton, O.  
J. H. Muts, Caldwell Planing Mill, Caldwell, O.  
E. G. Pettit, Crooksville, O.  
W. E. Viets, Lehigh Portland Cement Co., Chicago, Ill.  
Franklin Powell, Perryburg, O.  
Fred Crisp, Geo. Crisp & Son, Akron, O.

#### Register of Ladies.

Mrs. W. F. Powell, New York, N. Y.  
Mrs. C. A. Cross, Bellevue, O.  
Mrs. Chas. Schmutz, Youngstown, O.  
Miss Marie Dingelby, Youngstown, O.  
Mrs. J. C. Nully, Canton, O.  
Mrs. R. E. DuVille, Toledo, O.  
Mrs. H. E. Kendrick, Delaware, O.  
Mrs. F. H. Kinney, Cincinnati, O.  
Mrs. W. H. Kerman, Napoleon, O.  
Mrs. F. P. Childs, New Lexington, O.  
Mrs. Chas. W. Schaefer, Dayton, O.  
Mrs. F. C. Rosche, Cincinnati, O.  
Mrs. J. W. Thomson, Coshocton, O.  
Mrs. VanEpps, Cleveland, O.  
Mrs. W. A. Holst, Toledo, O.  
Mrs. F. S. Jones, Toledo, O.  
Mrs. J. M. Sheridan, Toledo, O.  
Mrs. J. G. Hughes, Newark, O.  
Miss Jessie Hughes, Hughes, O.  
Mrs. E. M. Koch, Sandusky, O.  
Miss Norma Zistel, Sandusky, O.  
Mrs. W. K. Evans, Toledo, O.  
Mrs. J. A. Baird, Coshocton, O.  
Mrs. J. H. Muts, Caldwell, O.  
Mrs. Geo. Hesse, Jr., Wheeling, W. Va.  
Mrs. P. A. Jandernal, Cleveland, O.  
Mrs. W. Wright, Akron, O.  
Mrs. E. C. Swessinger, Sandusky, O.  
Miss Mildred Swessinger, Sandusky, O.  
Clara Beckert, Columbus, O.  
Miss Zirkel, Columbus, O.



THE GOWAN YACHT.

#### REPEATS MATERIAL MUSEUM PLEA.

Springfield, Ill., August 21.—The annual report of A. R. Crook, Ph. D., curator of the Illinois State Museum of Natural History, just issued, is of interest to building material men. For one thing he advocates an enlarged central museum, one room of which measuring 40x60 could be devoted to economic geology. "Here the clays of the States—of which \$12,000,000 worth were produced last year"—he says, "could be placed on exhibition. An analysis of each clay would accompany the different samples. Its geographical and geological position and method of digging would be indicated. Samples of the various wares into which it has been made would be shown. The work of investigation done at the State University Department of Ceramics could to advantage be exhibited here. Clay is but one of fifty different minerals which have an economic value and whose usefulness could be increased by exhibition in this department."

The museum already has many specimens of interest to building material men, the donors of which were listed recently in ROCK PRODUCTS, but since that time the whole collection has been catalogued and it is shown that there are over 130 specimens of limestone, twenty-five or thirty of sandstone and lesser numbers of other materials. The publications, too, have been arranged so that they are easily accessible. There are over thirty interesting volumes on clay and fully as many on cement. As the visiting attendance at the museum is now in excess of 50,000 persons a year, and Professor Crook is advocating a plan whereby exhibits might be prepared for the schools of Illinois, he deserves the co-operation of producers, manufacturers and quarrymen in his work.

#### CHICAGO CORPORATIONS.

The following Chicago corporations have been granted charters at Springfield by Secretary of State Doyle:

Independence Construction Company, with capital stock of \$2,500, to do contracting. The incorporators are Louis Brownstein, Robert T. Brewer and Samuel Flame.

Maxwell Construction Company, with a capital stock of \$10,000, to do a general construction and contracting business. The incorporators are John M. Maxwell, David W. James and Jacob H. Pollak.

Standard Paving Company, with a capital stock of \$20,000, to do a general contracting and paving business. The incorporators are V. A. Wright, George C. Peters and Andrew Jaicks.

Community Mausoleum Company, with capital stock of \$100,000, to erect and deal in mausoleums. The incorporators are William S. Freeman, Joseph O. Morris and A. B. Murray.

# HEART TO HEART TALKS

By An Observer.

## TALKING POLITICS.

If all the business men in the country put in their time talking politics there would be no business. Thereby it stands to reason that business will fall off in proportion to the amount of time wasted by the business men in talking politics.

There are a goodly number of reasons why a business man should not waste his time in talking politics.

First, he is wasting time that should be used in his business.

Second, no one will ever be converted to your way of thinking.

Third, the other fellow's idea of politics may be better than yours.

Fourth, politics and business do not mix any more than oil and water.

Fifth, the country needs your help in making this a good business year.

Sixth, you are only a drop in the political pond, anyway, while in business you can be quite a pond all by yourself.

I could most likely go into high numbers in giving reasons why you should let politics alone.

Several men have been chosen as candidates for the office of president of the United States, and whichever one of them is elected, it will be a sad day for someone—and that someone is the office-holder who expects to lose his job or the one that was sure he could pick up a soft snap if the other candidate had gotten in.

Why waste any time worrying about an office-holder? He spends three-fourths of his time trying to get in and the other fourth gorging himself at the public crib, so that when he does have a layoff he is not fit for anything.

But I stopped at number six in telling why a business man should not talk politics, and I want to elaborate a little on that same number six and the fact that the business man is only a drop in the political pond.

His position reminds me of something that happened in 1861 on board the old receiving ship Ohio, lying at the Charlestown navy yards.

Visitors used to come on board occasionally and it was the duty of the Master at Arms, or Jimmy legs, as we called all men in that position, to keep watch of the visitors and see that they did not go where they did not belong or interfere with anything on the ship.

One day a long drawn out specimen from the interior came on board. He was an inquisitive chap, and, besides asking a lot of fool questions, persisted in going into parts of the ship where visitors were not allowed.

The Jimmy legs on the Ohio had spent all of his life at sea and was not only used to obeying orders, but was used to having his own orders obeyed. He was a large man, weighing all of three hundred pounds, and this inquisitive greenhorn irritated him.

He was heard to say, "I have told you twice you can't go there."

"Yes," said the greenhorn, "but you don't seem to understand that this ship belongs to the government of the United States and that the government of the United States is in the hands of the people. Now, I want you to understand that as a citizen of these United States I am part owner in this ship, and as an owner I have a right to look over my own property."

Jimmy legs was taken aback, but only for a minute. Then he laboriously leaned over and picked up a rope yarn from the deck, and cutting off about two inches of it handed it to the greenhorn and said:

"You are all right, my lad, but here is your share. Get off the ship at once." And he got.

This, as near as I can think, is about what the business man amounts to in the political game. But the good he can do by being optimistic, attending to business and doing all he can to convince people that he has faith in a republican form of government, whichever way the political cat jumps will make him a power in the community.

When a writer wants to write an Indian story he goes where the Indians are; he goes there for local color; he goes there that as far as possible he may be a part of an Indian tribe. He must feel like an Indian. In order to write of the Indians he must live like an Indian, live their life and think their thoughts.

It is exactly the same with the business man. In order to boost business, he must talk business, work at his business and think business; but he cannot boost business and talk politics any more than he can attend to his business and improve his business and study Indians.

Let me tell you something that I am quite sure is true: statesmen, as a rule, are honest. There may be exceptions, but I believe the exceptions are very few. They do not all think alike, and it is not natural that they should, but they all believe in the Government and are continually studying the best interests of the Government, which means the people.

Politicians are seldom statesmen, and they have more honesty than we have been in the habit of giving them credit for.

In this day and age the dishonest politician is short-lived. The rank and file are reading and studying now, and they vote not as someone tells them to, but vote as they believe to be for the best interest of their locality, and the rank and file will not support a dishonest politician after he has been found out.

As a business man today you can serve your country better by attending strictly to business than you can by talking politics. There is one thing you want to remember—the politicians are not the back-bone of our country; the back-bone of our country is made up and kept strong by the optimistic business man, the producers and the laboring man.

Bear this in mind and don't waste time talking politics when you can do yourself and your fellow men ten times the good boosting business.



## THE TELEPHONE.

It seems as though the telephone had been in use long enough at the present writing so that any man in business should understand its real value, but this is not so, and possibly never will be. Once today, when my phone rang, a woman called and said: "Who are you?" The words of that ragtime song came to my mind:

"I'm the guy, I'm the guy"

That put the stars up in the sky."

But I didn't say it. I said: "Who do you want?"

Then the voice came back: "What's your number anyway?"

"What number do you want?"

There is just as much sense in calling a number and saying: Who are you, or, What's your number, as there would be ringing a man's doorbell, and when he came to the door, saying: "Who are you anyway?"

It comes back to that pet theory of mine that people don't think. The telephone, properly used, is a great assistance in business, but improperly used is liable to do a business great harm.

A telephone girl's position is much more important than lots of business men give it credit for. It is not always what you say but how you say it. The business man don't think when he hires a poor telephone girl, and the customer, or would be customer, don't think when he becomes angry with the girl because he imagines he is receiving bad treatment from the house.

The advantage of the right use of the telephone was brought forcibly to my mind one day when I called to see an old acquaintance who was in the grocery business. In the store was the proprietor, the cashier and six clerks, and it seemed that someone was at the phone more than half the time. The young lady would answer the phone and the first time I heard her I thought to myself, what a sweet voice that girl has. In a little while

the phone rang again, and the proprietor was called to answer. I was surprised to find that he had a voice as pleasant as that of the young lady.

Surprises were coming my way as I sat there waiting, or catching a chance to have an occasional word with the proprietor. Most of the clerks were called to the phone at different times and every one of them talked so smooth that I wanted to buy groceries myself, or would have if I had had any place to use them.

After a time the hurry of waiting on customers, answering the telephone and putting up orders was over, or had quieted down a little, and I asked my friend how it happened that all of his people had gotten the business of telephoning down so fine.

He smiled as he said: "Do you know, old man, that is one of the secrets of the success of my business. I would not have a man or woman in my employ that does not understand the art of telephoning."

"So you have it down to an art, have you?" "I call it so, and I think it is as much of an art as anything else that can be called art, and I will leave it to you if we are not all artists at telephoning."

"You sure are, but tell how it all happened. Speaking of yourself, you cannot have been a born telephone operator because you were on earth a little while before the days of telephones."

"Yes, you are right about that, and thereby hangs a tale. When I first went into the business I had never had any experience in this line and I knew that I had to make everything count. For that reason I visited several stores in this line, not so much to find out how they did business as to find out what they did that I thought I could improve on.

"I kept looking long enough to find out one thing, and that was that there are lots of proprietors, and lots more clerks, that were lacking in courtesy, and I decided I would make courtesy my strong point. Then I discovered that a man was often more courteous to the customer he was facing than he was when talking to the same man over the telephone, and it flashed upon me that the telephone could be worked to my benefit.

"To satisfy myself more fully I called up several stores, and other business houses, and found I was on the right track, and I consider courtesy a large part of my capital.

"Then I figured that it would do but little good to be courteous to customers myself unless everyone in my employ followed my example. I not only set them a good example but I told them what I expected of them in the way of being courteous to customers. I selected my clerks with this end in view and then kept them up to the mark as best I could. The result of this is that I have a set of clerks that have been with me a long time and it is second nature for them to be courteous."

I never go into an office now without feeling that I would like to know how much the telephone is doing for or against the business.

## THE DAILY GRIND.

About the most unfortunate individual I know of, apart from the man who has no work to do, or does not have to work, is the man who considers his work as the "daily grind." When a man gets to the point where his work becomes a grind it is pretty safe to assert that he has let his opportunities slip through his fingers and failed to apply himself, or that he has lost his grip.

It is a great misfortune for a man to feel this way about his work, and it is not in the nature of things possible for him to perform it as well as if he enjoyed it. In order to get the most out of life it is necessary to take a lively interest in whatever falls to one's lot to do, and in order to take a lively interest in work it is necessary that the work be congenial.

Several years ago a number of prominent New Yorkers gave a birthday dinner to Mark Twain on the occasion of his seventy-first anniversary. In an after dinner speech, after acknowledging the compliment of the entertainment, he casually remarked that he had never done a day's work in his life. His friends, while not understanding what he meant, took the remark as a piece of humor, for which he was so famous. One of them, however, was curious enough to approach him later in the evening and ask him if he did not consider his recent lecture tour around the world, and his subsequent writings about it, as work. Twain replied that he considered all that as play, because he enjoyed doing it, and he added that if he had been compelled to do things he did not enjoy doing, in order to earn his living, he would have starved

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to death. That was Twain's way of expressing how necessary it is to take a lively interest in the work one has to do in order to succeed.

It would be a broad statement to assert that every man who loves his work makes a success of it, yet it comes very close to the truth, close enough to constitute a strong incentive for those who are not congenitally and profitably employed to make an attempt to get into an occupation more to their liking.

It cannot be denied that the man who is not congenitally employed, yet is compelled to work, is in a daily grind, and that he will have to stay there unless he has energy enough left in him to prepare himself for whatever he is best adapted for and likes to do.

When a man is engaged in a business that is congenial to him the interest he manifests tends to lead him on to excel in that business or occupation. In most cases it brings out and exercises all the ability there is in him, and if he is energetic he experiences constant pleasure in his work instead of a daily grind.

There are men in every business or occupation who, by nature and inclination do not belong where they are. The energetic and ambitious man when he discovers this almost invariably gets out and takes up a calling for which he is better fitted and in which he finds enjoyment instead of a grind. In the biographies of many prominent men we read that in early life they started in some business or profession that did not appeal to them, and when this became manifest, through partial or complete failure, they changed to something they could take a lively interest in and which brought out the talent that led them on to success.

To make a change from one occupation to another often involves sacrifice, and even temporary hardship, but the man who has the sagacity to realize that he is on the wrong track, and courage enough to switch over where he belongs, also has determination enough to carry him through to success. He then enjoys his work and instead of being a partial or complete failure in an occupation he did not like he succeeds.

It behoves every man, therefore, to examine himself and determine whether he is engaged in a class of work that he likes and can take a lively interest in. If not, and he has sufficient courage and determination to make the change, it becomes a duty he owes himself to move over where he belongs.

Only those who have succeeded in a vocation they naturally fitted into are able to appreciate the real pleasure there is in work that they like because such experience is accompanied by good health, good spirits and at least a fair degree of prosperity. They know nothing of the daily grind.

## TOO MUCH TROUBLE.

"Say, Jim," said old Pete Longacre to his yardman, "if that smart Alec of a salesman that was here last Monday comes around here again, just throw him out of the yard. I am just clean tuckered out chasing around about cement."

"What have you agin him, Pete? I thought he was a mighty interesting chap."

"That's what's the matter with him. He's too darned interesting. You know when he was here the first of the week?"

"Yes, I talked with him. It was Monday."

"Well, I did, too, and I don't want to talk to him no more."

"What did he do to you, Pete?"

"What did he do to me? You'd better ask what didn't he do to me. He come in here and set down in that there chair and commenced talking politics. And he can talk politics, and he is on the right side, too. Then he reached into his pocket and pulled out a couple of nice fat cigars and told me to take my pick. I took one of them. I didn't think they was much difference in 'em. Then he lit into me about business. He told me all about how their cement was made and told me he heard there was some buildings going up here in town, and when I said I didn't bother about car load trade, he switched off and commenced talking about bull pups. Say he kin talk."

"After a while, he switched back again on to cement, and when he had gone, I waked up to the fact that I had signed an order for two car loads at a special price, to me."

"When I found out what I had done, I had a mind to chase him up and take the order away from him, but as I was thinking it over I heard the train pull out and he was gone."

"For goodness' sake, Pete, what you going to do with two car loads of cement? You didn't tell me you bought any."

"I know I didn't. I was too darned skeered, I guess. But I hustled yesterday and the day before and I sold the whole dumb lot."

"Did you lose anything, Pete?"

"No, I made twenty-five dollars, but I tell you I had to scratch. Don't let that fellow in here again. First thing I know he'll be selling me a car load of second hand pulpits."

And still some people wonder that one man succeeds and another man fails. One man works and takes a chance and another man says it can't be done, and nothing is done.

"Nothing succeeds like success." But success cannot be achieved without hard work, and the hard work must be backed up with brain work.

People like to buy from fresh stuff, and no one can have the fresh stuff continually except the man who turns his stock over quickly.

It is the nimble sixpence today, the same as it was in the days of our forefathers, and the man in business who is satisfied with a bare living will soon have to give place to the man with a higher aim.

I heard a story a short time ago that is amusing, and if not strictly true it is near enough to fit someone in some locality known to every reader of this article.

Old Jim Lot was asleep in his chair. The day was warm. The flies were buzzing around amongst the groceries. A couple of hens had walked in to the store looking for kernels of grain. Nothing bothered Jim. His pipe had gone out and fallen from his mouth. The ashes were scattered over his dirty shirt front. Jim was dreaming peacefully.

A little girl came in, bringing a tin can. She took a look at Jim, snickered a little at his gro-



I HEARD THE TRAIN PULL OUT AND HE WAS GONE.

tesque appearance, then she advanced and punched him in the ribs with her thumb, saying:

"Say, Mr. Lot, my ma wants some molasses."

Old Jim gave a snort, partially woke up, rubbed his eyes and looked at the girl as though he did not know where he was.

"Say, didn't you hear? My ma wants a quart of 'lasses."

Jim had come to earth, but his sleep had not been finished.

"Look here, gal," said he, "ain't there nobody else round this town what keeps molasses?"

Perhaps it was Jim's store that the lady came to buy some rice. She had given her order, and the proprietor was after the scoop, when the lady noticed a cat asleep in the rice barrel.

"Never mind," said she, "I don't think I care for any rice."

The proprietor had noticed the cat at the same time.

"Oh, that cat don't mind being disturbed," said he. But the lady went out.

These few instances are not fiction, altogether, they are realities, and while these people are complaining of dull business, the king of the five and ten cent stores is erecting a forty-five story building in New York City.

When in Seattle a few months ago I saw the foundation of a forty-two story office building, which is now in the course of construction. This building is being built by money earned in the manufacturing and selling of typewriters. But it is safe to say that the founder of the business never went to sleep on duty.

As long as there are Joe Longacres and Jim Lots in business there is still as much chance for the young men of our country today as ever there was. In fact, it seems to me there is more chance for

the bright brainy young men who have had all the advantages of our modern schools, and possibly more, for the country boy, though not up with his city brother in some things, often seems to have the advantage in health and more practical education.

Up to today the boy from the country seems to be in the lead in the world of business, which goes a long way to prove that the elements of success are more often born to a healthy family than acquired by one who has not enjoyed the pure country air.

## SMALL SALES AND LARGE PROFITS.

Up in Montreal a short time ago I was in company with a young man who wanted to buy some post cards. We called at one store where there were two young ladies in attendance. One of them came forward to wait on us but all the attention she gave us was to say, in answer to my companion's question as to where the views of Montreal were, "They are all there, three for five." Then she returned to finish her conversation with the other girl and talked about Jim and his sister. The sister, it seemed, had just secured a situation in an up town store but Jim would not tell what salary she was to receive to start with. I was quite interested but my companion, who doesn't seem to care much for other people's pleasures or troubles, blurted out: "These people do not want to sell anything, we will go to some other store." He said it loud enough for them to hear, and they did hear, but no notice was taken of us as we went out.

Of course, two things are understood. First, these girls were paid a weekly salary. Second, it floated through their subconscious minds, which is all the mind some so-called salesmen have, that the sale would be small.

The things they did not realize were that my companion wanted to buy 100 post cards of Montreal and vicinity; that the profit on the post cards he wanted, at the price they asked, would have been one dollar.

The girl had, in fact, forgotten that she was working for her employer and only realized that she was working for a certain amount per week.

The case of the saleslady in Montreal is not an isolated one. The trouble with a large number of salespeople is that they despise the small sales, and while it is true that it takes just as much time to sell a hundred post cards as it does ten pounds of sugar there is a lot more profit in the post cards.

There is another side to the small deals. It is the key that unlocks the pocketbook for the large deals. Pay as much attention to the customer who is buying a bunch of shingles as though he was buying a house bill and when he wants a house bill he will hunt you up. The man who is only buying a monkey wrench today may be in the market for a five horse power gasoline engine tomorrow.

A good business man pays his salesmen according to the amount of profit they bring in and not on the amount of their gross sales. Salesmen do not always understand this because the proprietor does not always feel at liberty to tell his salesmen how much he pays for his merchandise.

You often hear a salesman tell about the gross amount of his sales but you never him tell how much profit his trip netted his employer.

I stopped at a little town in Washington last year and as I left the train I inquired where the new hotel was located, for I had heard there was a new one. A man took hold of my grip and said: "I will show you, I am the landlord."

"But wait a minute," said I. "I have been to lunch and if I find my people at home I may go away before dinner, so I guess I had best take the grip."

"Not at all," said the landlord, "I will take the grip and show you where the hotel is as we go along. The next train leaves for Spokane at 4 o'clock. There is the hotel," said he, pointing down a side street, "your man is a good quarter of a mile straight ahead, so you just hustle, I will take care of your grip."

I saw my man and was back to the hotel in plenty of time to catch my train. I saw the landlord and he was as full of smiles as ever. He said they did not meet the train I was going on as it was a local from the station beyond. He congratulated me on finding my man at home and shook hands with me at parting.

That is what I call salesmanship, and yet he did not sell me anything, but before I left that section of the country I told fifteen traveling men who were in the habit of making that town and I am positive that the little kindness that the

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landlord extended me was returned to him in the coin of the realm.

It does not do to despise the small things of life, either in little kindnesses or little sales. A young married man once told me, in speaking of where he bought his groceries, "I used to buy candy of that man when I first started to school and old Jim Burke treated me with as much consideration as though I was buying \$100 worth a week." Don't despise the small purchaser.

### WRITING LETTERS.

One of the most important departments of any business is the correspondence; and yet many a business manager falls far short in this particular.

It has always seemed to me that there is no business worthy of the name, that cannot afford to have a typewriting machine; and there certainly is no business that can afford to neglect its correspondence.

Until within the past few years the retail merchants, in many lines, have seemed to think that the typewriting machine belonged to the wholesalers; but that idea is being changed very fast.

There are many ways in which the retailers might emulate the wholesalers, and much to his advantage; but the typewriting machine, to my mind, takes the lead of them all.

However, this article is not to be about typewriting machines, but letter writing.

As yet, it can be safely said that the average retail merchant has not lived up to his privileges in letter writing. I have visited many dealers in building material who never wrote a letter, except to some company of whom they had bought material.

This is a decided mistake. The personal letter is one of the best business getters that the retailer can use. It comes next to looking a customer in the eye and telling him what you have for sale. In some cases it is better than that, for, if a possible customer is not ready to buy when you see him, he may forget what you have said; but a letter stands a chance of being filed away for future reference.

Let me make my meaning more plain, and show how the personal letter will help the retailer.

We will suppose the reader of this article is a dealer in building material in a town of a few thousand, or even a few hundred inhabitants. Trade is not crowding him, and he wishes that he had more to do. This is the time to stir up something with a personal letter.

In the first place, you should have a list of all of your customers, and also a list of possible buyers that have never traded with you. The last list should be large enough to embrace nearly all the buyers in your section. Then you should write a short personal letter to every man on your list—at all events use up the spare time you, or your stenographer, might have at this work. Be sure to make your letters personal.

If you are writing to Mr. Thomas Bruce, and you know him well enough, address him as "My dear Tom." If you are not quite well enough acquainted for this, perhaps you can address him as "My dear Mr. Bruce."

Of course, you know what to write. But, in case you have not been in the habit of writing letters to your customers, it may be hard for you to begin.

I will suggest a form of letter such as I once dictated for a dealer who wanted to try this out. I had gotten the dealer quite interested in the proposition, and all at once he said: "You dictate a letter to my girl, there. She hasn't a thing to do, and I bought that machine because she wanted it to make bills on."

"Who shall I write to?" said I.

"Write to old Joe Worth. He is a farmer out on the slough road and I haven't seen him for a month. I don't suppose he has had a letter for a year."

I started in; and, as near as I can remember, this is what I wrote:

"My dear Joe:

I have not seen you for a month, or since you were in here and bought the brick and cement for that smoke-house. I heard you were in town last week, but did not get to see you. When you come again, come to the yard. If we cannot do anything else, we can swap a few lies.

I am getting in a car of drain pipes today. Are you going to use any this season?"

After the letter was written, I showed it to the dealer, and he said: "That is all right, and as true as preaching. Let her go. That will tickle Joe."

The stenographer, who was also a bookkeeper, entered into the spirit of the thing, and I made out a few form letters for her.

A year afterward I dropped in to the same place again, and before I was through shaking hands, Mr. Sweet, the dealer, said, "Say, that letter was a great thing."

"I am glad you appreciated it," said I.

"I mean to say it was a great thing for Sadie. She struck me for a raise on account of having to write the letters, and I had to give it to her."

"Mr. Sweet, how much did we increase the business last year?" said the girl.

"I don't know. You kept the books."

It was some satisfaction to know that the plan succeeded, but I realized that I had the stenographer to thank for the greater part of it, and in Mr. Sweet's quaint way, he gave her the credit for it.

I have yet to find a man who is not pleased to receive a letter. I mean a real personal letter; something that breathes good feeling and companionship, and a business letter can be written in that way, even to a man you never saw.

I once knew a banker who was hunting business through personal letters. One day he received a small well-gotten-up advertisement from a business house. The banker wrote and acknowledged receiving the advertisement, and added to the letter, "Unless you are tied up to some other bank, come and bank with us. We like to have people that get up good advertising." And the banker got the account.

Let me tell you a secret. There is more vanity about the average man than a woman ever thought of having, and, if you can touch a man's vain point, you have him over your side of the fence.

Of course, this does not mean you nor me. It just means your customers, or those you think should be your customers, and who will be, if you will feed them on the right kind of dope.

I have not really begun to tell you anything about letter writing as yet. I do not intend to tell you but little about it in this short article, as my space is limited; but I will mention a few things.

In the first place, make your letter short and to the point. Make your sentences strong, and the fewer words you use, the less liable you are to be misunderstood. Have your letters written on the typewriter. Write them in double space. And these personal letters that I have been writing about, do not let them go over the second page.

Time was when people who wrote books wrote more description than plot; but the writer of today must have fire-works all the time, or the people have no time to read it.

It is the same with letter writing. Let every word mean something.

Recently, some one rewrote "Little Dorrit," said to be one of the best of Charles Dickens' works, and possibly the most drawn out. The man who rewrote it, however, put the whole story in about one thousand words, and there it not a doubt but that it is interesting reading.

Did you ever notice a business man opening his mail, and take note of what he does with a three or four page letter? You will find that he will invariably count the number of pages and lay it to one side. If he knows you are looking at him, he will say, "I will put that letter aside and read it after a while." And the chances are ninety-nine to a hundred that this long winded epistle will never be read by him.

In February, of this year, I was in Portland, Oregon; and one morning, while in an office waiting for the proprietor while he was opening his mail, he handed me a letter. This letter was from a wholesale house in Boston. It was written with a pen and cross written, and was both written and signed by the head of the concern.

It was interesting to me as I knew the writer personally. I handed it back to the proprietor and asked him what it was about. He said he did not know. He didn't think he would take the trouble to find out, "but," he added, "I am going to have it framed and hung up in the office."

The wholesaler who wrote that letter, as I happened to know, made his money, or the most of it, before typewriting machines came into general use; and today he has money enough to afford to be old-fashioned if he wants to, and he seems to want to.

This is today. And we are living for today and the future, and the man who has his mark to hue to in the business world cannot afford to use the tools of a past century.

It seems to me that there is more chance for the young business man today than there ever was. But is brain, not brawn, that wins, and the right letter, written in the right way, and sent to the right place, is a part of the brain work that wins.

### SELLING GOODS ON THE ROAD.

The more a man knows about the goods he sells the better salesman he ought to be. You will notice that I do not say the better salesman he is,—because there are salesmen who know all about the goods they sell, but they are so anxious to let their prospective customers know this that they make themselves obnoxious to the trade.

The only reason a salesman needs to know all about the goods himself is so that he can answer questions readily. Every buyer enjoys meeting a walking encyclopedia of the business which he is in, but very few care to hear a salesman reel off a dissertation on their particular line of goods that sounds like a lecture given to a crowd of students.

If I were to choose between two salesmen in picking men to send on the road, and one had a thorough knowledge of the goods he was selling and no knowledge of human nature, and the other was lacking in knowledge of the goods but was a splendid reader of character, I would take the last one for the reason that the man who knows men can learn about the goods, but the salesman with a thorough knowledge of goods who has never learned to read men is beyond hope. The best salesman, of course, is the one that knows both men and goods and knows how to use his knowledge properly.

However, I am always suspicious of a man who says that he knows men and can sell anything, because often, such men have had a trial of selling goods in several lines, and although they can sell goods, men of this kind are often found who will not stick to one thing.

There are a lot of things to learn in selling that cannot be learned in a school of salesmanship, nor from articles written by a first class salesman, that must come from actual experience. You may tell a would-be salesman how to approach a customer, and possibly what you have told him will work on the first customer he approaches, but the next man he comes in contact with is a different kind of a man and the same line of talk will not work.

A good salesman never gets into an argument with his customer on politics or religion; in fact, he should not enter into an argument with a customer about anything if he can help it. At the same time he should not be a milksop and give the impression that he had no mind of his own.

Once during a hot political campaign I traveled with Joe Holman for a while. Joe always had a good trade, or was a good liar, one of the two, for trade was always good according to his talk, and he was cheerful and good natured.

"Joe," said I to him one day, "what's your politics?"

Joe looked at me for a moment and said, "I was born an Irishman, but I am a lumber salesman now."

"That is no answer, Joe."

"I know that; but that is no question to ask when a customer might be around to hear."

"Are you ashamed of your politics?"

"Sure not. I am proud of them. I am a Democrat when I am trying to sell to a Republican, and a Republican when I am trying to sell to a Democrat."

"I would not think you could sell to either of them."

"Sure I can, my boy, I let them convert me."

"But which of the candidates for President are you going to vote for? You can tell me."

"How do I know? When the time comes, I would vote for all of them if I could. None of them ever did me any harm. Anyhow, selling lumber is where my bread and butter comes from. I have no call to make Presidents."

And Joe winked as he threw away the stub of his cigar and started out.

I always admired Joe. For two years I used to run across him often, and he was always that same jolly, good natured chap with a pleasant word for everyone he knew and business always good.

A salesman who goes into an office with a long face, and complains of dull business, will never succeed. Buyers do not want, nor do they need a depressing atmosphere, and a salesman who does not know this has not as yet acquired his first lesson.

Some customers are more susceptible to these influences than others. I have known men to whom it was almost impossible to sell anything on a rainy day. The weather seemed to have a depressing influence on them. The salesman has something to do besides finding out a customer's needs. He first wants to find out his customer. All men have hobbies. When you can find out what a man's hobby is, you have an entering wedge to his character.

I found a man once who said he had no hobby,

but it did not take me above a half an hour to find that he had a hobby but did not know it. His hobby was saying mean things about people who had hobbies, and, especially, men in his own line of business. He would sit for an hour at a time roasting a competitor who played golf, and he seemed to take lots of pleasure in it, and I helped him along for he was my customer and the other man was not, and I did not know anything about golf anyway.

I do not know how many times I have heard this said: "Any man can sell a buyer what he wants; it is only a good salesman who can sell a man what he does not want."

I am sure that saying is a fallacy. I do not believe it is any part of good salesmanship to sell a man a lot of stuff he does not want and cannot sell. Neither do I think it is good salesmanship to overstock a buyer, which is often done. But not, in my opinion, by the good salesman.

I never knew a salesman that overshot the mark in this way that succeeded in the long run. After a salesman has overstocked a customer on any one thing he has lost out with that customer, and as a rule he is wasting his time to call on him again. The salesman may think he has done a sharp piece of salesmanship, but that is not the name of it. It is a sharp trick, one that the buyer never forgets.

Another bad thing for a salesman to do is to find fault with goods that the customer has already bought of another house. The salesman is in reality finding fault with the buyer's judgment.

Another thing a salesman should never do is to find fault, or knock another salesman, or a competing house. The salesman has a right to stand up for his own house and say all he can in its favor, but he will make more friends with the trade if he keeps his hammer hid.

It is poor policy to knock a competitor for another reason, for the competitor hears of it, and if they should ever be looking for a salesman for that particular territory they would pass the knocker by.

It has been said that if a plenty of mud was thrown, some of it would stick. That may be true. But there is another saying I like much better. It is, "If you handle pitch, some of it will be sure to stick to you;" and I imagine it is the same thing with mud.

### THE SHOW WINDOW.

How often does it occur to the dealer in building material the advantage gained by the retail merchant in other lines by his show window, and how seldom it is that he thinks of applying to his own business the show window idea.

Putting this up to a dealer once he looked at me in astonishment, and after he recovered himself he said, "A show window? How in the name of all that is great can a dealer in building material have a show window? I have no show window to begin with, and if I had one, what have I to put in it to do me any good?"

"That is easy, of course," said I. "You have no show window, and if you had you have no hats or dresses to show, but you can work out the same principle. You have wall space in your office that is not working. Suppose you put in a 'phoney' fire place, built of the material you sell. You have lots of customers who would take pleasure in examining it and it would create a demand for the material you have to sell."

I looked around his office, which, by the way, was a very good one, and seeing a picture of the Grand Canyon, said: "Are you interested in the hotel at Grand Canyon?"

"What made you think that, there is no hotel in that picture?"

"I know there is not, but you must have some reason for having that picture in your office."

"Well, no reason in particular, only I was there once and the sight impressed me so that I bought that picture after I came back."

"Do your customers ever speak of it?"

"I should say they did. I don't know how many people I have described that place and my trip, to."

"No doubt that picture, and what you have said about the place, has been the means of some people going out there."

"Yes, I know of several."

"Now, let us come back to the show window proposition. Suppose, instead of that picture, you had a photograph of an approach to some beautiful residence that you had furnished the material for, and we will go a little further; suppose you had on your walls several pictures of houses showing what could be done with cement in the way of making urns, fountains and other ornaments for the lawn, don't you think it would attract as

much attention as the canyon picture, and be of more advantage to your business?"

"I never thought about that before."

"Most likely you have not, but you have spent lots of time explaining about the canyon, have you not?"

"I guess I have, but it is a grand thing and I have enjoyed telling about it."

"Of course you have, but don't you see if you had the pictures and the fireplace you would be talking business in business hours and you could have this picture at home to entertain your friends with at the times when it is really best for a man to forget his business and take a little recreation."

"Perhaps you are right, old man, it listens good."

"Let us go a little further with this idea. Your customers will have impressed on their minds the fact that you have these pictures, the fire place, and perhaps a little square of fancy brick work or tiling, and they will bring around the owner or prospective builder to show what results can be gotten out of certain material. You, perhaps, might have a lawn ornament or two in front of your office. It would not come amiss. Now, surely, couldn't you have a show window, if you wanted one?"

"I guess you are right, but who has anything of this kind?"

"I don't know anyone who carries out the idea to the letter, as I have laid it out, but is that any reason why you should not put in operation an idea if it appeals to you as being a good one?"

"No, that is true, I was only thinking it would be an innovation in the business."

"I hardly think you are right there; in fact, I know you are not, but it is a fact that the majority think as you have been thinking, or perhaps I should say have not been thinking about it at all."

When I left the dealer was thinking it over, and it is worthy of serious thought.

The idea that many dealers seem to have that lime means barrels, cement means bags, etc., and that the business is one that savors of dirt is all wrong. It is better to think of what all of this material can be made into.

As an advertising proposition this show window idea is one of the best. You interest your customer, and when he talks of the pictures, or ornaments, in your office, he must necessarily talk of the business you are both engaged in.

How many times have you gone into an office and seen the walls covered with horse pictures, or perhaps pictures of dogs. You realize at once that the proprietor is a horse or dog fancier, but you never saw a real show window filled with horse or dog pictures unless the proprietor was selling pictures, and if he was, within the next day or two the window would be filled with some other kind of pictures.

If the show window helps the picture dealer, then a proper show window will help a building material man. There is no cheaper method of advertising than the methods mentioned in this article, but there are other methods, and lots of them, which I propose to take up in other articles, for advertising pays if properly done.

### TRANSPORTATION IN INDUSTRIAL PLANTS.

During the last few years much has been written and spoken relative to efficiency insofar as the manufacturing end of the matter is concerned, but in very few instances has the transportation of material in and about manufacturing plants received the attention its importance deserves.

Necessarily, the transportation facilities of a plant include all the surface and overhead devices used in moving material from one point to another, but in this brief article it is purposed to consider only the surface movement of material.

In most instances large manufacturing plants present a rather difficult transportation problem. This is due to the unsymmetrical growth of plants of large proportions, owing to the fact that in a great majority of cases the expansion was not anticipated or provided for in the original conception.

The Jeffrey Manufacturing Company, of Columbus, Ohio, is spread out over an area of approximately 26 acres and has 18 acres of floor space. This plant manufactures a large and varied line of electrical locomotives, electric storage battery trucks, coal mining, elevating and conveying machinery of all descriptions, structural steel works, etc., etc.

A birdseye view of the plant is shown in Bulletin No. 13B.

Throughout the shops of this company a high degree of efficiency has obtained for some time, but it is only several years ago that the matter of transportation of raw and finished material has received adequate consideration.

At that time our raw and finished material was being transported to and from cars in and about our various shops and departments by means of two-wheeled warehouse trucks, four-wheeled trucks and industrial cars. Also, part of the territory was served by a Jeffrey Storage Battery Truck working on a 36-inch gauge industrial track. A careful study of existing conditions made plain the fact that a very material saving could be effected by establishing a more efficient transportation system.

After considering the problem from every angle, it was decided that the Jeffrey Storage Battery Trucks and industrial cars offered the best and most efficient means of surface transportation. Accordingly, the industrial railway was extended to take in all departments and a systematic method of car dispatching established. The accompanying plan gives an idea of how thoroughly the different buildings are served by the industrial track.

As soon as this system was established, very rigid instructions were issued that absolutely no material was to be transported by other means than by the Storage Battery Trucks and industrial cars. It was immediately found possible to dispense with the services of a two-horse team, 28 two-wheeled warehouse trucks, 13 four-wheeled trucks, 8 wheelbarrows and 18 men whose whole time had been devoted to this purpose. This effected an annual saving of more than \$600 per month over the cost of the former system, taking into consideration the interest and depreciation on the investment, operating, maintenance, costs, etc. The monthly tonnage handled is close to 4,000 tons. Viewed from its present efficiency, it would seem almost an utter impossibility to go back to the previous or any other method of transporting material.

The Jeffrey Storage Battery Truck is so simple in design and rugged in construction that it does not require the service of skilled operators, and the maintenance and operating costs are extremely low.

Our accompanying Bulletin No. 13B shows a number of illustrations in which these trucks are used for hauling a great variety of materials.

The industrial railway track shown on pages 4 and 5 gives a comprehensive idea of the system, and the wide range of usefulness for transporting material with the trucks.

These trucks will pay for themselves in a very short period of time and especially where the industrial track system is already installed. We would gladly demonstrate to interested parties, further details of the systems we employ for dispatching our trains, without loss of time, thus securing the greatest efficiency from the service of these trucks.

Signed,

H. W. Arnold.

### CIRCLE SWING DERRICK.

Building contractors in Chicago and throughout the country have for a number of years generally used the Sasgen Bros.' circle swing builders' derrick in construction work on large and small structures. It has supplanted the old method of rigging up a pulley with grooved wheel and rope, lifting a load by hand over hand power on the rope. The light weight, strength of construction of the Sasgen derrick, fitted with the best malleable castings and selected wood, prevents its getting out of order in ordinary wear. It is easily placed in position on any floor of a building under construction, the load being lifted by means of cranks. Contractors state it is the best circle swing derrick on the market, and now appears Walter L. Woods, president of the Standard Material Company of Chicago, and finds a new use for the Sasgen swinging derrick. He completed recently the most up-to-date barn, stabling 74 horses, of any owned by builders' supplies firms in the country. Mr. Woods saw that the basic principle of the Sasgen derrick was perfect in construction work and would have the same advantage in lifting hay and grain into his feed loft on the second floor. So he placed a Sasgen derrick on the roof of his barn, lifting feed to the hay loft, which he finds a marked improvement and more economical than the old fashioned pulley. This opens a new field for this popular derrick and owners of barns will not be slow in following Mr. Woods' example, who has blazed the way for them.

### COL. H. I. WEED ELECTED TRUSTEE.

Col. H. I. Weed has been elected trustee of the Oshkosh Builders' Supply Company, of Oshkosh, Wis., which went into bankruptcy some time ago. The court at Oshkosh disposed of the charge as groundless made by some of the stockholders that officials and some of the stockholders had gotten together in the effort to elect a trustee who would be favorable to them.

# SAND AND GRAVEL

NATIONAL ASSOCIATION OF SAND AND GRAVEL PRODUCERS.

Meets Annually.

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R. Snoddy,		
W. C. Jones,		
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Official Organ		

A NEW GRAVEL WASHING SCREEN.

We know that our readers will be interested in the new type of sand and gravel washing screens just being introduced by Raymond W. Dull & Co., of Aurora, Ill.

This company introduced the well known quick change conical washing screens, a few seasons ago, and now introduce their new Inclined Conical Washing Screens, as shown in Fig. 1, with apparently several advantages over the other type.

Referring to the cut, you will notice that all the screens are mounted on one inclined shaft. It is only necessary to drive this one shaft and all the screens will rotate. This does away with complicated chain drives, which add greatly to the first cost of the machinery, as well as the extremely expensive upkeep to renew the numerous sprocket wheels and chains. Previous to this invention, a chain drive for each screen and long countershafts to make distribution of power were necessary.

The main "warcry" for the new screens, according to Mr. Dull, is "Make the big ends of the screens do the big work." To explain this, the material is delivered into the large end of the screen, which is better able to take care of it. It is this tapered screen, with the slope in the opposite direction from the usual slope, which makes it possible to mount all screens on the same shaft and makes a simple drive. The screens and spouts still maintain the standard slopes.

The timber supports for the screens are extremely simple, as a glimpse of the cut will show, and as a walk-way is provided on both sides of the screens, they are accessible for attention. The screen plates are put on in longitudinal sections, with angle clips which clamp the plates about the spiders. This permits the removal of the jackets, without disturbing the center shaft, bearings or spiders.

The cut only shows the top of the bins, and it may not be apparent that the gravel plant does not need to be so high for the same capacity of bins, as with other screens. If material is not elevated so high, less power is consumed. If no complicated chain drives are used, this will lessen the power still more.

We understand that chain drives are one great cause of shutdown, and it looks as if this screen should appeal to gravel men. Mr. Dull promises us something new in gravel handling machinery for our next issue.

The American Gravel Company, of Webb City, Mo., has been incorporated with a capital stock of \$4,000. The incorporators are E. M. Fones and G. A. Fones.

NEW FREIGHT RATE IN NEBRASKA.

Lincoln, Neb., August 21.—The Nebraska Rail-way Commission has authorized the Chicago, Burlington and Quincy railroad to establish new rates on sand and gravel in carload lots from Superior to Red Cloud, Chester, Edgar, Invale, Shickley, Franklin, Reynolds, Endicott, Tobias, Ohiowa, Odell, DeWitt and Alma. The rates range from 3 cents to 4½ cents.

NEW FIRM AT ST. LOUIS.

St. Louis, Mo., August 21.—C. J. Guffitt, president of the Ohio Sand Company, representing New Orleans, Pittsburgh and Louisville men has closed an agreement with the Universal Sand Company, of St. Louis, whereby he is to take over its properties at Pacific and Crystal City. Mr. Griffith will move to the twelfth floor of the Syndicate Trust building in this city and superintend the new Universal Sand & Gravel Company which is to be incorporated with \$50,000 capital. Equipment capable of turning out 100 car loads of material daily from each plant will be installed.

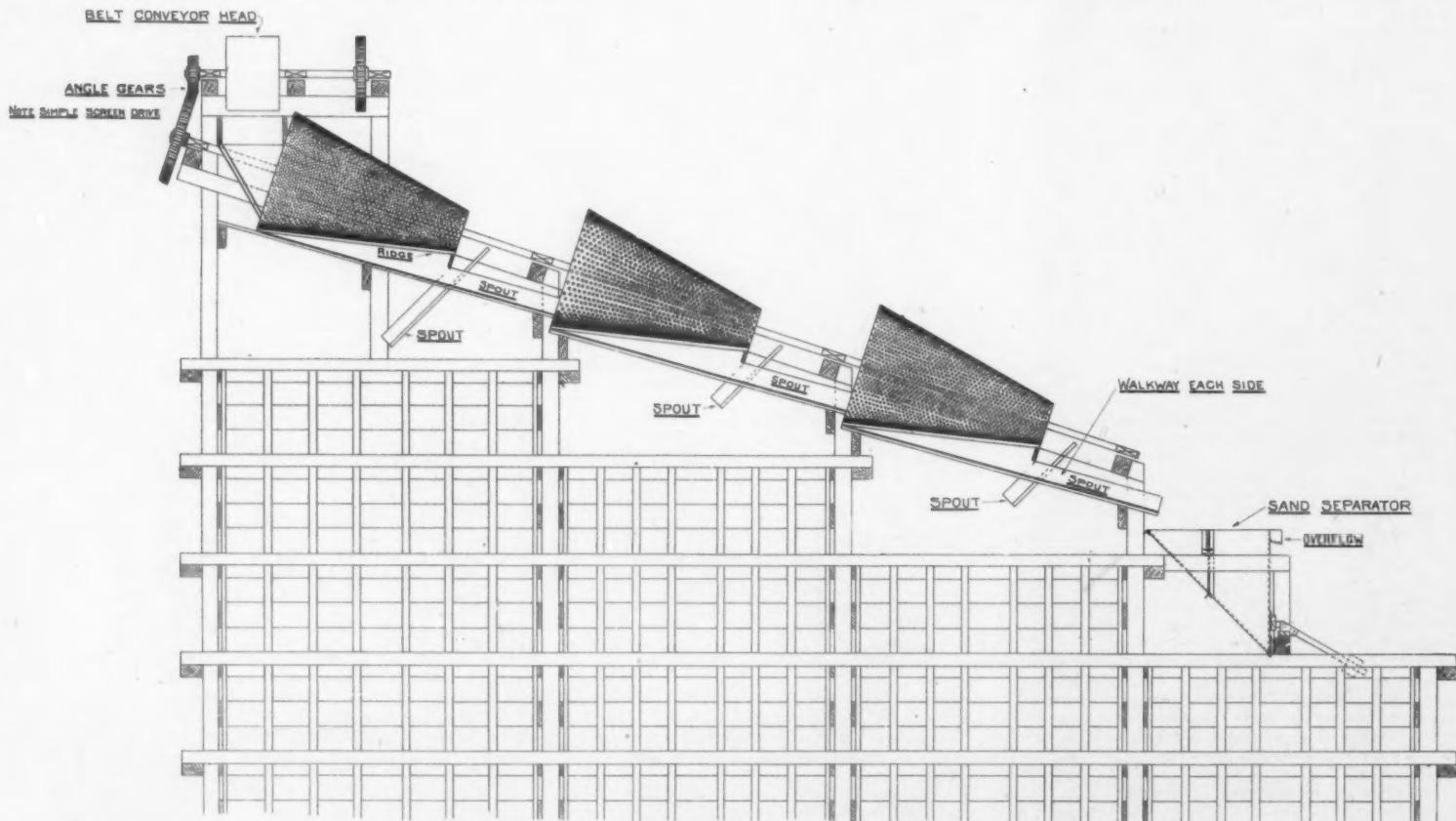
The Janesville Sand & Gravel Company, of Janesville, Wis., has filed a complaint with the Wisconsin railway rate commission against the Chicago, Milwaukee & St. Paul and the Chicago & Northwestern railroads, alleging that those lines have charged unreasonable and exorbitant rates for switching cars from the company's pit to the main line and to other points in the state.

The Atlas Sand and Gravel Company, of Indianapolis, Ind., has been incorporated with a capital stock of \$15,000 to deal in sand and gravel. The incorporators are W. C. Shoemaker, O. T. Owen and A. A. St. Clair.

The Poteet Coal and Sand Company, of San Antonio, Tex., has been incorporated with a capital stock of \$15,000. The incorporators are D. W. McKey, J. McKey, R. P. Hare and W. P. Callaway.

Several business men at Burlington, Wis., have secured an option on a large strip of land near the Chicago, Milwaukee & St. Paul railway line and will open a sand and gravel business.

Albert Froid, of Paxton, Ill., sold the gravel for the northern Missouri, west Spruce and Elm streets paving in that city.



## OUTING

**Of the New York General Contractors, Association With the Goodwin Sand and Gravel Co., as Host.**

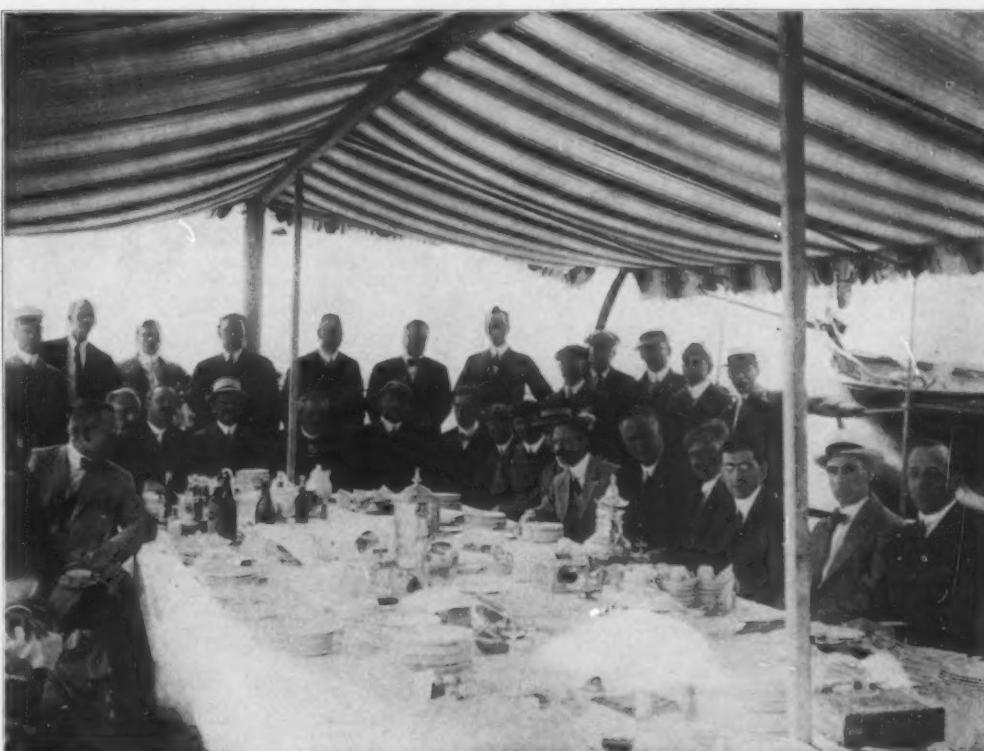
The good old summer time brings no rarer day to the members of the General Contractors Association than that on which the Goodwin Sand & Gravel Company plays host to the Association and takes all hands for a day of recreation and refreshment, both mental and physical. Hence July 17th was the red-letter day this year, and Pier 6, East River, was the mecca of contractors bright and early on the morning of that day. The citizens around Jeannette Park and South Street gaped in amazement at the unwonted crowd at that hour and in such prosperous habiliments, and speedily found the answer as they looked seaward whence the throng was hastening, and there saw a staunch and handsome vessel, full bunting, afloat to the breeze—our old friend "Goodwin No. 14," and her jolly commander Captain Johnson saluting old friends and welcoming the new. Our host, too, "Jim" Ewing, who seemingly enjoys the outings more than the guests, and perhaps that's because he has the added enjoyment that a successful manager feels when he "does it up right." "All you have to do is to pick out a date," Mr. Ewing told us. "We will provide the boat, the Sound, the weather and everything else," and he made good. We know he doesn't like to be told so to his face, so we use this medium to convey the enthusiastic opinion of everyone there.

There we are under way, "A jolly cargo"—and nobody enjoys a day off better than the man who feels he can't really spare the time, but finally yields to the nostalgia for that old "sea-air," and the "Bon camaraderie" that's synonymous with the Goodwin outings. Note "Commodore" Ewing in the upper deck forward, wearing a yachting cap reminiscent of a College Point chowder party. Note also the musicians, caught in the act of tuning up, and then note the "chorus" lined up, rows deep, on the lower deck. "Hoot, mon," said Hugo Reid, "tis a bonnie crew," and then somebody said "Waiter!"

The first port of call was Dock street, Brooklyn, where we picked up the Brooklyn contingent and where "Cap" Johnson had a chance to show a bit of fine seamanship. Then away up the East River, and "Cap" had to call for an extra man to tend the whistle cord answering salutes. Passengers in passing craft rushed to the rail to see what it was all about and many a fair dame was the recipient of a vigorous Chautauqua salute. "They all look good when they're far away."

For the greater comfort of the guests, and to prevent them from getting sunburned, an awning was stretched over the upper deck and there all hands soon gathered and got down to the real spirit of the day, which was forgetting the pay-roll and the inspector (unintentionally coupled. Ed.) and otherwise heaving dull care overboard.

Eaton's Point was reached about 1 o'clock and the party was transferred by barge to the big gravel dredge which had eaten a channel some 300 yards long, 50 wide and 30 feet deep in behind the shore front. The dredge, of which a view is shown, is similar in every respect to those used in gold dredging. The heavy ladder buckets are capable of dredging to a depth of 100 feet. The material is dumped from the buckets onto a washing platform and thence into cylinder screens which separate the gravel into five commercial sizes, drop it onto conveyor belts which run to the scows lying underneath. Thus in one continuous operation the gravel is dredged, washed, screened and loaded,



ONE OF THE ATTRACTIVE FEATURES.

five scows at a time carrying respectively sand, grit, roofing gravel, paving gravel and concrete gravel.

Superintendent Young in charge of the Eaton's Point plant, has spent his life in gold dredging operations and in about every part of the globe where gold is found. He takes great pride in pointing out the fine points of the dredge and keeps the equipment in spick and span shape. "But there's no dirt to clean away," he says, "the washer does that for me." So, of course, we believe it's no trick to run it, and "there's nothing to do till tomorrow."

The output is shipped to all parts of the country and while there we saw schooners come in, one from Buffalo and one from Key West for cargoes of gravel. The gravel beds extend to a depth of over 600 feet, and as yet not over 30 feet has been touched. Mr. Ewing is beginning to worry about the future shortage and the necessity to seek a new location, as the present available supply will be exhausted in about thirty years. In the meantime, to be prepared for rush orders, there are several huge piles of all sizes of gravel along the channel.

The plant interested the visitors who swarmed over the dredge and the runways to such an extent that the transport "Kate Buckley" had to give several warning toots to call all hands back to the barge. The run up to Cow Bay was enlivened with prose, poetry and song and developed several worthy rivals of the musicians. "Chris" Truelson rendered "The Shamrock" in such fine voice and with such dramatic effect that he was overwhelmed with requests for encores and several of the crew were seen to weep. "Charley" Angell discovered that the down stairs back porch of the boat was

the most comfortable spot and it wasn't long before a select coterie gathered around and corralled the colored quartet to give a special cabaret performance. They sprung a surprise that was the hit of the party by singing to the tune of "Mr. Dooley" some verses handed in by an unknown librettist who found inspiration in the outing for the following splash:

Contractors lead a working life for 12 months in the year,  
They're busy scratching gravel, for that wolf is always near;  
But there's one day of joy and rest the summer time  
When the Goodwin Sand & Gravel Co. invites them up the Sound.

Here's to the Goodwin, here's to the Goodwin,  
The best sand company we ever knew.  
With wine and beer, we drink your cheer,  
Long life and health and happiness to you.

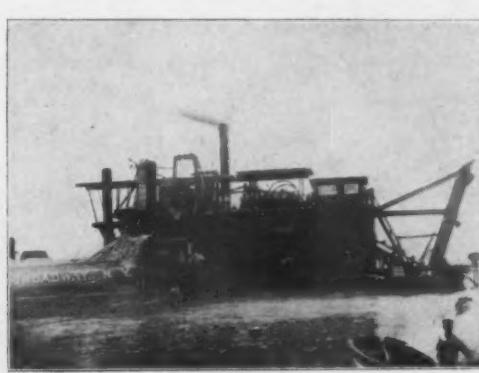
Columbus was a famous man because he found our land,  
And if he hadn't, where'd we go to get our Cow Bay  
Sand?  
Our joity trips to Eaton's Point we never would have known,  
Nor what a prince "Jim" Ewing is, he never could have shown.

O, Mr. Ewing, O, Mr. Ewing,  
No matter if from Pittsburg town you came,  
We will forgive it, for you've outlived it,  
The man who put the win in Goodwin's name.

Cow Bay was reached in short order and the party disembarked to take a trolley ride over the Goodwin Traction Company's lines, in a specially constructed sight seeing car. At the end of the trolley, the car was hauled by a dinky to the various cuts now being operated, and our photographer got a view of us watching one of the big Bucyrus shovels make the dirt fly. The bank at



ON BOARD GOODWIN TUG NO. 4.



ON THE BIG GRAVEL DREDGE.



WATCHING OPERATION OF BUCYRUS SHOVEL.

this point is over sixty feet in height, and this one cut contains 1,000,000 yards, which it is figured will be entirely removed by January next.

Findlay Douglas, who has achieved some fame as a golfer, opened negotiations with Mr. Ewing with a view of laying out a links on the property, because of the excellent natural hazards and sand traps which the location afforded.

At Cow Bay the property of the Goodwin Company covers some 100 acres. The sand is excavated by Bucyrus Steam Shovels, loaded in trains of Continental dump cars, carried to the screening plant where the train runs onto an overhead track, underneath which are the hoppers into which the sand is dumped; then lifted by a series of bucket elevators to the screens which deposit it in hoppers above the lower level track from whence it is loaded into trains of cars and conveyed to trestles extending some two hundred feet beyond the shore, under which scows are berthed for final loading. The daily capacity of the Cow Bay Plant is 5,000 cubic yards. The output of both the gravel and sand plants is handled by a fleet of five tugs and 112 scows, all over 500 cubic yards capacity, owned by the Goodwin Company.

On returning to the boat, it was found the waiters had taken advantage of the absence and prepared the table for another spread that made everyone forget temporarily his regret that the outing would soon be over. President Emil Diebitsch expressed the unanimous sentiment of the crowd in a few well chosen words of appreciation of the Goodwin company's lavish hospitality, and "Host" Ewing said he was already planning some more features for the fourth annual outing next year, all of which listened good to the hard working contractors present, and promises them at least one day of rest in 1913.

The General Contractors' Association, whose headquarters are in New York City, numbers in its membership the following prominent contracting firms and corporations engaged on public work in New York City and State:

#### ACTIVE MEMBERS.

American Pipe and Construction Company.  
Asphalt Construction Company.  
Atlantic, Gulf and Pacific Company.  
Barber Asphalt Paving Company.  
Beaver Engineering and Contracting Company.  
Bradley Contracting Company.  
Brooklyn Alcatraz Asphalt Company.  
T. J. and G. L. Brown.  
Thomas B. Bryson.  
Butler Brothers Construction Company.  
J. F. Cogan Company.  
Cranford Company.  
Frederick L. Cranford.  
Thomas Crimmins Contracting Company.  
Deagon Contracting Company.  
Empire Engineering Corporation.  
William A. Engeman.  
R. K. Everett & Company.  
Foundation Company.  
Franklin Contracting Company.  
Chas. Grimmer & Son.  
Hanover Contracting Company.  
Harlem Contracting Company.  
John J. Hart.  
Hastings Pavement Company.  
Holbrook Cabot & Rollins Corporation.  
James H. Holmes.  
H. S. Kerbaugh, Inc.  
Keystone State Construction Company.  
Lockjoint Pipe Company.  
Lord Construction Company.  
MacArthur Brothers Company.  
McDonald & Barry.  
McHarg-Barton Company.  
Patrick McGovern.  
Arthur McMullen.  
Mason & Hanger Company.  
Melrose Construction Company.  
Merrill-Ruckgaber Company.  
John Monks & Sons.  
N. Y. Submarine Contracting Co., Inc.  
North Eastern Construction Company.  
O'Brien Brothers, Inc.  
O'Rourke Engineering Construction Company.  
S. Pearson & Son, Inc.  
John Pierce Company.  
Phoenix Construction Company.  
Pittsburgh Contracting Company.  
Richards & Gaston, Inc.  
John C. Rodgers.  
Rodgers & Hagerty, Inc.  
Ryan-Parker Construction Company.  
Sicilian Asphalt Paving Company.  
E. E. Smith Contracting Company.  
F. V. Smith Contracting Company.  
Smith, Hauser, Locher & Company.  
Smale & Triest Company.  
R. P. & J. H. Staats.  
Henry Steers, Inc.  
James Stewart & Company.  
Terry & Tench Co., Inc.  
Underpinning and Foundation Company.  
United Engineering & Contracting Company.  
U. S. Wood Preserving Company.  
Wilson & Baillie Manufacturing Company.  
Winston & Company.

#### ASSOCIATE MEMBERS.

Alpha Portland Cement Company.  
Atlas Portland Cement Company.  
Clinton Point Stone Company.  
Continental Car and Equipment Company.  
Crescent Sand and Gravel Company.  
Cross, Austin & Ireland Lumber Company.  
A. P. Dienst Company.  
John Fox & Company.

Goodwin Sand & Gravel Company.  
John P. Kane Company.  
Thomas W. Kiley & Company.  
McMann & Taylor Company.  
Moran Towing & Transportation Company.  
Phoenix Sand & Gravel Company.  
Rockport Granite Company.  
Calvin Tomkins.  
Upper Hudson Stone Company.

#### NON-RESIDENT MEMBERS.

Acme Engineering and Contracting Company.  
Armstrong & Latta Company.  
Houston Barnard.  
Great Lakes Construction Company.  
Hassam Paving Company.  
John M. Holler.  
Kinsler Construction Company.  
L. M. Ludington's Sons, Inc.  
Maryland Dredging & Contracting Co.  
Merritt Construction Company.  
Norfolk Creosoting Company.  
Poughkeepsie Engineering & Contracting Company.  
R. D. Wood & Company.

#### HONORARY MEMBER.

Hugo Reid.

### CHICAGO SAND AND GRAVEL NEWS.

Chicago, Ill., Aug. 20.—While much dissatisfaction is noticeable among the producers of sand and gravel, with prices, which have been at rock bottom since last spring, the volume of trade has been large and shows an increase over that of last year. Prices this month are firm and stiffening in anticipation of the great demand for sand and gravel this fall, which every indication points to far exceed the rush to supply the demand usual at the latter end or closing of the building season. Viewing the situation in the sand industry from different angles in Chicago, this year will average up fairly well with other years in the past.

C. H. Stebbins, president of the Lake Shore Sand Company, stated: "Volume of business undoubtedly is satisfactory this month. We have plenty orders on our books and new work is coming out every day. We will have more work than we can conveniently handle this fall; it is always that way at that time of the year, but prices are at rock bottom. Prices are commencing to improve somewhat this month and with the commencement of fall's business will naturally go to a higher point. We are this month shipping on an average of 75 cars of sand and gravel daily. On the whole, conditions are not bad."

P. M. Lewis, secretary and treasurer of the American Sand & Gravel Company, was found to be in a happy and cheerful frame of mind, "not because," he said, "business warrants that condition, but because that is the natural disposition of the sand man." He stated: "We are handling a good volume of trade, have all the orders on our books that can be comfortably taken care of, but prices are still at low ebb. Prices are showing some improvement and will stiffen early in the fall season. This has been the biggest month we have had in years, as far as volume of business is concerned, and we have every reason to believe September and October will top it."

James A. Hart, president of the Joliet Sand & Gravel Company, with offices in the Fisher building, stated that they had paid more attention to the ballast than to the wash material trade this year. They are shipping about 400 cars, equaling 12,000 yards, of gravel a day from the Hammond Pit at Elgin, on the Chicago, Milwaukee & St. Paul R. R. and the E. J. & E. R. R.; the Plainfield Pit at Plainfield, Ill., on the E. J. & E. R. R.; the Rockdale Pit, three miles south of Joliet, on the Chicago, Rock Island & Pacific R. R., and the Millside Pit, eight miles south of Joliet, on the Chicago & Alton R. R. Railroads are commencing work. Mr. Hart also stated that probably more sand and gravel (concrete) is sold in Chicago than any previous ten years and believes that for the balance of the year every man in the sand industry will have all the business he can handle.

It was stated at the offices of the Atwood-Davis Sand Company that the demand for gravel in the country for road work is increasing, having received several good orders of late. The volume of trade in Chicago is found good but prices poor. There is also more gravel used in the construction of caissons than ever before; this use of gravel has steadily increased during the last three years. The outlook for an exceedingly active business this fall is bright and prices, in anticipation of this condition, are stiffening.

F. M. Richardson, president of the Richardson Sand Company, said: "There is an improvement in the sand and gravel industry this month, both in volume of trade and in prices. Conditions are fairly good. We have had a good demand from the country, within a radius of 100 miles of Chicago, to which we pay more attention than the city trade. Everything points to an exceedingly brisk and lively business this fall."

### LOUISVILLE SAND NEWS.

Louisville, Ky., August 18.—As the result of a midsummer month which has broken all records for building activity in Louisville, the sand men of the city are more than busy. They are rushed. It is probable that a bigger or better year than the present for the sand trade has not been known for the last decade. The big building enterprises are providing the chief fruits of the season, but plenty of juicy plums, so to speak, exist in the field which abounds with residential jobs.

That all-important feature of the trade, the weather, has been favorable in a general way during the past month. There has been a great deal of rain, but the periodic down-pours were short-lived and did not prove sufficiently potent to retard operations in any appreciable extent. The sand men might have been cheerier if there had been more sunshine, but they could not have been happier in view of the amount of business existing. And fewer complaints as to the inevitable scarcity of teams in midsummer are forthcoming now in comparison with the protest of former years.

The Starks building, a magnificent skyscraper at Fourth avenue and Walnut street, the Republic, another skyscraper one block west on Walnut at the intersection of Fifth avenue, and the new theater and office building to be erected at Fifth and Walnut, constitute a trio of excellent prospects for the sand interests. All of this work will be in shape for attention from the trade within ninety days. Then there is the much talked of Southern National Fire Insurance building, a 22-story structure at Fourth avenue and Market street, and a host of minor projects. The city is projecting extensive street improvements and new sewer construction and the improvement of the river front is demanding attention in building circles.

The Ohio River Sand Company is working to the limit of its capacity. The company is delivering daily to the new \$1,000,000 City Hospital, consisting of eleven concrete buildings being erected by the A. Bentley & Sons Company, of Toledo, Ohio, and has contracted for extensive supplies of Ohio river sand to be delivered in various districts of the city where the Board of Public Works has authorized street and drainage improvement. The report of the Ohio river company indicates that enough business is already booked to keep the concern busy thirty days ahead and new contracts are coming all the time.

John Settle, of the Ohio River Sand Company, has returned from a short vacation at Bay View, Mich. Mr. Settle enjoyed every moment of his sojourn amid the lakes.

C. A. Stout, one of the best known men in local building circles, has become sales and collection manager for the Ohio River Sand Company. Mr. Stout held a similar position with the Hydraulic Brick Company for eleven years and withdrew from the clay-working to the sand trade upon the dissolution of the Hydraulic a month ago. He is thoroughly experienced in every detail of local building and both he and his company are to be congratulated upon the new connection.

Unique work which is being done by the Knickerbocker Roofing & Paving Company, of Chicago, Ill., is being furnished with sand by the Nugent Sand Company, of this city. The Illinois Central Railroad Company recently decided to pave its local yards, occupying extensive frontage along the river in the East End, with creosoted wooden blocks in order to deaden the sound and to facilitate the heavy traffic of the freight depot. The contract for this paving was awarded to the Knickerbocker company and upwards of 5,000 yards of sand for the job are being supplied by the Nugent company. The Nugent Sand Company is much pleased with the recent decision of Federal authorities to deepen the harbor of the Ohio river at Nugent's landing. Dredges are now at work under the supervision of the government at the foot of the Nugent float and when their task is completed the sand company will be in a position to wharf heavier barges than heretofore.

A general run of business is making the E. T. Slider Company work full time. P. C. Donaldson, manager of the sand business of the Slider company on the Point, is convinced that the summer of 1912 will round out as a memorable one for his interests. Deliveries from the electrically-equipment plant are proceeding all over the city.

### PITTSBURGH SAND AND GRAVEL NEWS.

Pittsburgh, Pa., August 16.—Sand men are busy. They are having the best summer for years. Fairly high water the past six weeks nearly all the time has greatly aided the river operations and shipments. More diggers are now working on the

three rivers than since 1907. Local trade is fairly good as the public works projects and the many large warehouses are calling for a large amount of sand which quite offsets the lack of ordinary building. Then, too, the steel companies are making new records in construction and repair work and are buying heavily for these uses. The Jones & Laughlin Steel Company is going ahead with the completion of its \$10,000,000 steel plant at Aliquippa, twenty miles down the Ohio river. The Pittsburgh Steel Company is putting in millions in new plants up the Monongahela river. The Steel Corporation is unusually active in building at all its plants throughout the Pittsburgh district and up Youngstown way through the Mahoning and Shenango valleys there is a splendid demand for sand which is making large shipments the rule. Prices are getting better—that is, there is not quite so much cut throat competition as last year. Glass sand men are very hopeful for the fall trade which they feel will start early. Dealers in foundry sand are doing more business now than for years.

"Our boats can't work fast enough." This is the gist of the report received today from the Rogers Sand Company, which has been steadily increasing its equipment the past year by new steel barges. They are now working hard on both the Ohio and the Monongahela rivers and announce that shipments are brisk.

The Pittsburgh White Sand Company has been giving its plant at Mapleton a very thorough overhauling and has built a new reservoir there. It ships over the Pennsylvania railroad and says orders are good and fall prospects excellent.

J. K. Davison & Brother, whose plant is located in the Lawrenceville district on the Allegheny river has bought the business and equipment of the National Sand & Gravel Co. The latter had one digger and several yards in the city.

The Iron City Sand Company is very busy. General trade, its officials say, is fair and its shipments to the Youngstown district have been heavy.

The Pennsylvania Glass Sand Company has its plants on the B. & O. and the Middle Division of the P. R. R. working full time. They look for an earlier and larger fall trade with the window glass concerns for these firms are already placing their annual contracts for lumber and on a more liberal scale than for several years.

The Winfield Sand & Mineral Company reports the outlook excellent. Fall orders are coming in nicely at its offices in the Second National Bank building. Its plants in Butler county are rushed.

The American Sand & Gravel Company has been formed at Erie, Pa., by Glenn C. Page, George A. Disque, Charles Freund and Lyman C. Shreve. It will have a large operation.

At Zanesville, Ohio, the J. A. Swingle Contracting Company, capital \$35,000, has been organized to deal in sand, gravel and stone. The incorporators are Harry C. J. A. and C. E. Swingle, C. C. Robinson and Lewis H. Swingle.

The Kennerdell Silica Sand Company has completed its organization with L. V. Blue, of the Wheeling Mold & Foundry Company, president; Horton Penrose, Pittsburgh representative of Shimmer & Co., of Philadelphia, vice-president; Thomas R. Heywood, of Walter Wallingford & Co., of Pittsburgh, secretary and treasurer. Shimmer & Co. will be selling agents for the new company, with offices at 1511 Oliver building, Pittsburgh. The Kennerdell has bought sixty-eight acres of land at Kennerdell, Pa., on the Allegheny Valley railroad and has secured equipment for a sand plant with capacity of 200 tons a day. The quarry will have a 200-foot face and will be ready for shipments this month. The product will be high grade open hearth steel casting and glass sand.

The Ashtabula Beach Sand & Gravel Company, located at the harbor just west of the Pennsylvania railroad docks at Ashtabula, Ohio, is shipping from six to eight cars a day. The sand comes from the lake bottom and is drawn by a suction machine together with gravel and water through a pipe and shot into a sieve which separates it from the gravel. A clam shovel is used by the company to take the washed sand from the washing bed and dump it into cars.

The Pennsylvania Sand Company, of New Castle, Pa., is increasing its working capital from \$10,000 to \$20,000 in order to add to its facilities.

The Nuzum Washed Sand Supply Company, capital \$50,000, has been organized by Samuel R. Nuzum, Henry C. Sample, Madge B. Sample, Alfred W. Hess and J. Clarence Hall, of Fairmount, W. Va.

The Juniata White Sand Company is making extensive improvements to its plants at Mapleton, Pa. Electrical power is being installed and the big wooden trestle is being replaced by a steel trestle.

The Dundee Silica Sand Company, of Canal Dover, O., has been sued by the Cleveland Trust

Company, as trustee, which wants to foreclose a trust deed and appoint a receiver. It is alleged that on May 15, 1905, the trust company gave the sand company fifty \$1,000 gold bonds only five of which have been paid. Suit is brought for the balance with interest from June 1, 1910.

The Scioto Sand Company is making rapid progress on its new plant in the North End at Portsmouth, O. It will be ready for shipments by September 1, according to Superintendent Stockham.

The Warren Silica Sand Company, at Warren, Pa., has started operating its new plant. Harding Kimberlain, of Pittsburgh, is manager of the plant which is a new industry in Warren county, and J. J. Leighton, of Rochester, Pa., is president of the company. The plant has a capacity of from 100 to 300 tons of silica sand per day and the company now has a very nice trade among the glass concerns of this district.

The Imperial Sand Company has a large force of men putting in machinery at its new plant at Indian Camp near Buckhannon, W. Va. It owns several hundred acres of high grade sand there and expects to work a big force of men shortly.

#### NEW YORK SAND AND GRAVEL NEWS.

New York, August 14.—The demand for sand and gravel was active in the local market during the past month. Dealers report that business conditions are much sounder than they were this time a year ago, and are of the opinion that from now on conditions will improve. Prices are being well maintained and there is very little shading reported. Gravel is being used in a large way in concrete work and there is considerable paving work going on here where large amounts of sand and gravel are consumed. From inquiries received, a heavy fall business is expected to materialize.

Charles A. Fox, of the Phoenix Sand & Gravel Company, speaking of local sand and gravel situation, said: "Business was good in the local sand and gravel market during the past month. The demand has improved in a large way of late and business conditions on the whole are on a much sounder basis than they were a year ago. A large amount of public street paving is in progress and a great deal of gravel is being used in the concrete work, where formerly the greater amount of crushed stone was used. Contractors are realizing that gravel is easier to handle and less cement is required in making concrete. Prices are steady and are on a strong basis. Am of the opinion that a good fall trade will materialize."

#### ILLINOIS SAND AND GRAVEL NEWS.

Springfield, Ill., August 21.—Matthus Poluski, Sr., has opened a gravel pit at Roanoke.

The Illinois Central Railroad has built a switch to the plant of the Blood Sand and Gravel Company, of Grayville, to facilitate growing business of that company. The Blood company on August 1 raised its price for sand delivered to \$1.00 a yard, gravel delivered \$1.25 a yard and 25 cents a yard less on the bank.

The J. H. Bushell Company, of Peoria, has undertaken to build a mile of gravel road on Prospect avenue in that city for \$3,600. The gravel was placed on a firm clay roadbed, which was guttered and graded toward the center last spring, and asphalt oil binder was placed on a foot of gravel.

T. E. McGrath, secretary and sales manager of the Mackinaw Sand & Gravel Company, has been elected secretary of the Chamber of Commerce, Lincoln.

William Mitchell has purchased a field near Belvidere and will open a gravel and sand pit. A large part of the output will be used in the manufacture of tile by the Belvidere Cement Products Company.

A meeting of the stockholders of the Aurora Sand and Gravel Company, of Aurora, has been called for September 7, when a proposition to dissolve the corporation will be voted upon.

#### SAND AND GRAVEL HAVE OPTION ON BIG GRAVEL JOB.

Alton, Ill., August 21.—Mulville Brothers, contractors of this city, are said to have an option for graveling twenty-eight miles near Fulton, Mo., of the cross country state highway between St. Louis and Kansas City. The job is estimated at \$82,000. The Alton firm has the contract for doing the grading and has until after January 1 to decide on the gravel.



#### QUARRY PLANT BURNS.

Buildings and machinery at the plant of the Columbia Quarry Company, two miles from Columbia, Ill., were destroyed by fire which started at 8 o'clock the night of Aug. 11, and burned until there was nothing more for the flames to feed on. The loss, it was said, would reach \$50,000 or more, but the exact figures could not be ascertained. C. H. Krause, of 4454 Forest Park boulevard, St. Louis, president of the Columbia company, declined to estimate the loss, but said he believed the company was fully insured. His information was the buildings had been destroyed.

The fire is believed to have started in the engine room. There was no adequate fire apparatus on the ground with which to fight the blaze, and the volunteer department of Columbia could not reach the scene on account of bad roads. Many residents of Columbia, attracted by the blaze, went to the works, but were powerless to give aid and stood about while the plant burned. The works are sixteen miles from St. Louis. The product of the quarry is limestone.

#### PROTESTS USE OF SANDSTONE.

Milwaukee, Wis., August 21.—Letters have been received by Mayor Bading and other city officials by Otto Rathmann, president of the American Granite Company, questioning the use of sandstone as a paving material for Milwaukee streets. He asserts that it is neither as cheap nor as durable as granite blocks. He says that for G. Simmons, Commissioner of Public Works, who let the contract for paving, states "that he disposed of his interest in the Milwaukee Sandstone Company shortly before his present appointment, but on account of his former connection he appears to be prejudiced against other materials."

#### ILLINOIS QUARRY NOTES.

Springfield, Ill., August 21.—The Franklin Stone Company, of Blue Island, has been incorporated with capital stock of \$1,000 to quarry, crush and deal in stone, lime, cement and sand. The incorporators are Emery C. Pronger, Herman F. Pronger and John L. Zacharias.

Leonard Johnson has sued the Casparis Stone Company, of Fairmount, for \$1,999 for injuries received, he alleges, through the negligence of a fellow employee, Charles Robinson, who ran a locomotive at the quarries against him, breaking two bones in the right leg.

Because the heirs of Corwith estate did not fence in an abandoned stone quarry at Aurora they have been sued for \$10,000 damages by the public administrator for the death of Joseph Koskoff, six years old, who fell into the hole, which had twenty feet of water in it, and was drowned.

Fire which destroyed the negro bunk house at the plant of the Kettle River Quarry Company, at Madison, is believed of incendiary origin.

While the cloudburst at Alton in July caused damage to the stone quarries there it served to generate new business. Alton is a city of hills and the streets are excavated. Many of the retaining walls gave way before the rush of water and the necessity for many new ones was created. At the D. M. Kittinger plant at Upper Alton a retaining wall was washed out and mud from two to three feet was left over the entire plant.

Warden Murphy, of the Illinois State penitentiary at Joliet, still defends his position that convicts should be used in crushing rock in and upon the public highways of Illinois. A new motor will be installed at the present plant to handle the stone cars.

The freight rate problem of the crushed stone industry is the ever present limit of operations. In the progressive state of Ohio they are working on this problem in a more intelligent way than elsewhere. The Public Service Commission of the state are taking a hand in the regulation and adjustment of freight rates of all manufactured commodities, and in the list is that of crushed rock. The question of short weights and allowances would often make a profit in the crushed stone business, where it works just the other way when the railroad adjusters have the whole say.



## The National Lime Manufacturers' Association

Meets Semi-Annually.

### OFFICERS.

William E. Carson, Riverton, Va.	President
King McLanahan, Hollidaysburg, Pa.	1st Vice-President
H. A. Buffum, Rockland, Me.	2nd Vice-President
Geo. E. Nicholson, Manistique, Mich.	3rd Vice-President
F. K. Irvine, Chicago	Secretary
C. W. S. Cobb, St. Louis, Mo.	Treasurer
Wm. E. Carson, Chas. Warner, Walter Sheldon,	Executive Committee

### MIXING LIME MORTAR.

One of the most serious drawbacks to our construction ideas in this age is that we are too much hurried in our method of constructing buildings, and with the natural consequence that many of them fail to withstand the test of time, making many an otherwise noble effort unworthy the labor and expense.

Of course this is not due to one or another material singly, but there is something very nearly akin to negligence in this respect, and the greater care that is bestowed on every detail the more certain are we to find that we have not worked to an end that means failure. There should be more particular care bestowed by all those who are connected with the various parts of the undertaking, and this applies to architects, contractors, builders, laborers, and lastly to those who are the owners of the structure itself.

Let us take a single item in the construction of buildings, that of mortar or plaster. It is the common custom to make a batch of mortar on the street, at least for the general run of buildings, one day and to use the same the day following, or at least within a few days, and then to look for excellent results. It is as impossible as anything in the world could be, and the reason is so simple that any man who has a reasonable knowledge of lime and its nature, should well know that there is the barest possibility of the outcome being satisfactory.

Let the facts be made plain. Take the lime and make a mortar bed, with an outside bank of sand. Put in your lime, then add the required amount of water. Immediately the lime begins to slake. This is caused by the lime taking or an amount of moisture equal to that which was lost when the carbonic acid gas was driven off by the heat in the operation of burning the limestone. When this moisture has been absorbed, the lime is said to be slaked, or hydrated, as the more modern term is called. This may apparently take but a day or so, and it seems reasonable to view the matter in this light, but this is where the error has and continues to be made by so large a number of builders today. The chemical action of the lime has just begun, and it will require more than six months under favorable conditions to properly slake lime, so that the mortar will be in a condition to be placed on the wall, and remain intact.

### Fault with Material.

The fault may be with the lime in the first place, and can be due to a poor quality of lime, caused by over-burning or under-burning, both of which are serious detriments to the lime itself. But this will not be improved by the rapid use of the mortar, and the results of so many of our plastering jobs being unsatisfactory is due to this hurried method of making mortar.

In some countries, Germany for instance, there is only a limited amount of mortar used that has not been allowed to remain slaked for at least six months. It is the usual custom there to dig wells in which the mortar is placed, so as to permit the chemicals to undergo all the changes that are possible, which generally requires several months at least, and in this way the life of the mortar is insured, and the work of the builder proves satisfactory. This lime has been put to a test that will be the most helpful thing possible to insure its good qualities, and at the same time to prevent the possibilities of the plaster from becoming lifeless, due to the continual changes that are going on from the fact that the lime was not permitted to slake properly.

### Make Too Much Haste.

In most of our American cities the custom prevails that the quicker a job is complete, the better will it please the owner, and the owner, as a rule, is the most

inpatient person in the world. There is only one way in which this difficulty can be met and overcome, and that is the adoption of laws in each city covering this point. There are good and sane reasons why this should be done, and the architects and builders should give the matter some consideration. The blame naturally falls on their heads when the plastering is found unsatisfactory, and the reason seems to be entirely overlooked. Any commodity that is subject to chemical changes, must be thoroughly understood and handled accordingly before there can be gained the results that will prove satisfactory to those using the same. Lime is one of these, and there is room for more care in the making of mortar, which seems too often to be a mere trite operation.

### Lack of Attention.

In making mortar, how few contractors give it the attention they should! In so many instances they are satisfied to permit an ordinary workman, one who has no idea of the importance of his undertaking, to superintend the whole operation. He may be careful, and he may not be, but in any event he does not understand the importance of his work, and with the exception of what meager experience he may have gained from his labors about buildings, has no idea of what he is doing. He judges by this instinct how much water to add to the lime, and how long it should remain before using. The builder is satisfied to take his views of the matter, and the result is too often displeasing to the owner of the structure, and justly so.

There is still another thing that should be taken into consideration, and that is the importance of having a filler for the lime in making mortar. Ordinarily, because it is plentiful, and consequently cheap, sand has been used to a great extent, and while it has given a fair amount of satisfaction, there are other ingredients that give much more lasting effects, and that are also very cheap. These include crushed cinders and crushed limestone, either of which has been found to make a most hard and lasting filler in the plaster. In fact, there have been cases where the plaster was found to be equal to that of cement, where either of the above ingredients were used in connection with the lime.

There should be far more care given to the subject of mortar, and the fact that it is used the day after being made will be found to be the chief cause for its rapid disintegration. Care should also be used in the selection of the materials. Lime, the most desirable kind, is the medium burned. It is not as dark as the lightly burned lime, and when a naturally white lime, will stay white when made up for plaster. It will slake very rapidly, and will be found to give the most perfect satisfaction. Clean, sharp sand, where sand is used, or in the event that crushed stone or crushed cinders are used, they should be selected with at least a degree of care as well.

### Give Proper Attention.

Give the matter of mortar as much consideration as you would to any other portion of the house, and there will be far less complaints, many of which are just, and there will also be a much greater amount of satisfaction among all those who are vitally interested in the building industry. Urge the adoption of laws to compel the proper slacking of mortar, and the results will be of real practical durability.

### PITTSBURGH LIME NEWS.

Lime men report that the outlook for big sales of agricultural lime was never so good as this fall. The continued and aggressive scheme of advertising which these companies have kept up the past two years among the farmers, together with the splendid lectures given at all the farmers' institutes throughout Pennsylvania, Ohio and West Virginia, and the fine work reported from the state experiment stations, is having its effect on the farmers, and they are discarding the almost universal use of large quantities of commercial fertilizers and substituting lime. All the agricultural lime plants are going to have a busy run if they can get ears promptly for their shipments. Limestone quarries are also busy in this district getting out stone for the state and county road jobs. Prices are slightly better than last year. Pittsburgh firms have taken some very nice contracts this summer and are well pleased with the outlook for fall trade.

The Duck Run Lime Company is a new organization in the big limestone belt at New Castle, north of Pittsburgh. Its members are Capt. M. S. Marquis, Henry McCreary, J. R. Baldwin, Edward M. Frisbee and Samuel E. Osborne.

The Empire Lime Kilns Company recently made complaint against the Central Railroad of Pennsylvania, charging discrimination in freight rates. Accordingly the Pennsylvania State Railroad Commission made a trip of investigation last week covering the towns of Reading, Minersville and Bellefonte, Pa. It will report on the matter shortly.

The United Lime & Stone Company, of Carlisle,

Pa., has applied for a Pennsylvania charter and will have an operation near that place.

The Pittsburgh Steel Company, which has underway two immense furnaces at Monessen, Pa., is developing extensive limestone deposits near Williamsburg, Md., between the Potomac river and the Pennsylvania state line. The tract is just off the newly built extension of the Western Maryland railroad.

### SAN FRANCISCO LIME NEWS.

San Francisco, Aug. 12.—While favored brands of lime for plaster work, etc., are meeting with an unusually strong demand, manufacturers of staple grades of lime used in brick work say the demand is hardly as large as in former years. This is attributed to the rapid increase in concrete construction, which is replacing common brick to such a large extent that the lime market is noticeably curtailed.

The Hydrate Lime & Plaster Company, Monadnock building, this city, representing the Puntenney Lime Company of Arizona, reports a good general demand throughout the state, business being particularly active with country retailers in southern California, where this company is especially strong.

The brig "W. H. Irwin," with a cargo of lime from Roche Harbor, has been at this port about a month with fire in its hold. Steam has been constantly forced into the hold in an effort to smother the flames, but such action has been without results, and the use of carbolic gas has also been ineffectual. It is now believed that the cargo will be lost.

### NEW YORK LIME NEWS.

New York, Aug. 14.—The demand for lime in the local market has been good and steady during the past month. Prices continue on a sound basis and good inquiry for the fall trade has been received by local dealers. Dealers report collections rather hard to make. Although the demand for other building materials is quiet, lime continues to be one of the most active materials on the list. The outlook is lime men report to be very bright indeed.

J. A. Curtin, of the Farnham Cheshire Lime Company, had the following to say in regard to the local lime market: "Business with us during the past month was good, and the demand was better than it was this time a year ago. Prices are stiff and steady. We are quoting for car lots, finishing lime, 300-pound barrel, \$1.55, and common lime, \$1.25 per barrel 300 pounds. We expect a good fall trade to come across, as indications point in that direction."

E. B. Morse, of the Frank E. Morse Company, added: "The call for lime was good during the past month and prospects are bright that the demand for lime will be of a good character for the balance of the year. Prices continue to be steady. On account of the bad weather we experienced during the spring, which put a crimp in building operations at that time, we expect that the fall demand may offset the poor showing for the year."

I. Sprague Comstock, treasurer of the Comstock Lime & Cement Company, said: "A moderate demand for lime was noted during the past month, but business to date in this industry has been below normal. Prices remain unchanged. However, the amount of business transacted during July has shown a marked improvement over July, 1911. We are of the opinion that conditions will improve in the early fall months when builders will get ready to finish their contracts."

### BEGIN ON NEW OHIO PLANT.

Springfield, Ohio, Aug. 21.—Work upon the construction of a new hydrating plant for the Moore's Lime Company, west of Springfield, has been begun by Morningstar-McIntire Construction Company.

### LIME RATE RAISE NOT VALID.

Madison, Wis., July 20.—The reduction of rates ordered by the Wisconsin State Railroad Commission at the request of the Waukesha Lime & Stone Company will hold, the commission having denied the request of the St. Paul & Northwestern railroads for a rehearing.

W. M. Peatman, president and manager of the Clearwater Lime Company, Orofino, Idaho, reports the lime business at Orofino as very good and their plant is running at full blast. He says the Orofino Portland Cement Company is cutting brush off their land and opening up a quarry and will begin building this summer.



## PITTSBURGH CLAY NEWS.

Pittsburgh, Pa., August 16.—Pavers lead in demand in all localities around Pittsburgh. The retailers say that generally the demand for building brick hereabouts is comparatively light. Many street jobs on the contrary have made paving brick good sellers all summer at slightly increased prices and sewer pipe are falling in line and have helped lately to swell a good total of orders. Fire brick for the steel mills and other plants are in more active call. In general the industry is very much better off than last summer. Good shipments are being made by the large companies to Ohio and points farther west where a good freight rate prevails and most plants in the Pittsburgh district are busy. The Glass Brick Company, of Connellsville, Pa., is getting more orders for its product every day. It has recently received the contract for 65,000 brick for the Oregon asylum at Pendleton and has completed the shipment of 22,000 brick for the New Jersey asylum at Morris Plains.

C. P. Mayer, of Bridgeville, a south side suburb of Pittsburgh, has just received a large order for pavers for the town of Monongahela, Pa. He lately gave his employees a raise in wages of ten per cent.

The Mount Union Refractories Company, which is really a Lock Haven concern, now has these officers: President, R. P. M. Davis; superintendent, C. V. Hackman; assistant superintendent, Rembrandt Peale; secretary and treasurer, Wilson Kistler. The company has secured 3,000 acres of the choicest Ganister rock in Huntington county, Pennsylvania, which figures out about 5,000,000 tons, or enough to supply a plant making 80,000 brick per day 120 years.

The Sharon Clay Products Company has started work with 50 men employed. Eight kilns are in operation. The plant has a capacity of 40,000 common building brick per day, but shortly it will start in the manufacture of pavers.

C. E. Sinsel, of Grafton, W. Va., has leased the Mackin sand bank on the west side of the Tygart Valley river and will shortly establish a plant for the manufacture of concrete building block.

The Keystone Clay Products Company, whose plant is at Greensburg, Pa., has just booked an order for 600,000 face brick for the new home of R. C. Hupp, automobile manufacturer, at Detroit, Mich. This is one of the most satisfactory orders that has come into the Pittsburgh district for a long time.

Some brick plants in the Pittsburgh district have been having trouble lately owing to the fact that western plants were paying \$1.75 per day while their rate has only been \$1.65. At several plants the laborers quit work two weeks ago, but in most cases the trouble was adjusted satisfactorily.

## ILLINOIS CLAY NEWS.

Springfield, Ill., August 21.—H. E. Taylor, secretary of the Kankakee Tile & Brick Company, at Kankakee, has donated a site for the establishment of the Kankakee Children's Home and Aid Society.

H. W. Clark has purchased the stock and property of the Mattoon Tile Company at Mattoon. The company may enter the brick manufacturing field.

E. R. Sturtevant, of Monmouth, a stockholder in the Abingdon Paving & Tile Company, has been made manager of the concern, succeeding W. R. Guyer, who sold his stock and resigned his position after nine years' service.

Charters have been issued by Secretary of State Doyle at Springfield to the following Illinois clay companies:

Advance Terra Cotta Company, of Clearing, with capital stock of \$5,000,000, to manufacture and deal in terra cotta and other clay products. Incorporators, Walter B. Rix, Stanley K. Gage and G. A. Johnson.

Northwestern Clay Manufacturing Company, of Richland Center, has increased its capital stock from \$150,000 to \$650,000.

Collinsville Brick Company, of Collinsville, capital stock \$2,400, to manufacture and deal in brick and other clay products. Incorporators, Thomas W. Sauer, Rosie Sauer and Maude E. Messinger.

Jersey Clay Products Company, of Newbern, with capital stock of \$20,000, to manufacture and deal in brick and other clay products. The incorporators are Walter P. Grath, Adeline Grath and Harry J. Krueger.

Illinois Clay Products Company, Chicago, increased its capital stock from \$5,000 to \$250,000.

## IOWA CLAY NEWS.

Davenport, Iowa, August 21.—The Black Hawk Clay Manufacturing Company, of Davenport, has become a member of the Iowa State Manufacturers' Association.

The Reliance Brick & Tile Company, of Belle Plaine, has won the litigation for water supply and will be able to go ahead with improvements at its plant. The addition of more kilns is contemplated as the company is specializing on hollow ware. Later equipment may be added for making brick.

The Marshalltown Sewer Pipe & Tile Company, of Marshalltown, has purchased site for an addition to its plant for storage room. The company is turning out much sewer pipe and tile and much drying room is needed.

The Davenport Brick & Tile Company, of Davenport, is now occupying one entire floor at 324 W. Third street, demonstrating its silo material and building brick.

The Acme Roofing & Tile Company, of Des Moines, has purchased a steam shovel from the city.

## WILL REPORT ON ILLINOIS CLAYS.

Springfield, Ill., August 21.—Promising clay areas in Illinois will be given prominence as the result of surveys determined upon by Illinois State Geological Survey at its meeting in this city the latter part of last month. Governor Charles S. Deneen, President E. J. James, of the University of Illinois, and Prof. T. C. Chamberlain, of the University of Chicago, who with Director F. C. DeWolf, of Urbana, make up the commission, decided that a study of the economic values of 625 square miles of land was possible and engineering maps for this territory will be made. This is only a part of the work of the body which will survey 2,025 square miles, showing the depth and distribution of valuable deposits and in addition will coöperate with the National Survey in drainage problems and with the State and national bureaus in bettering mining conditions in Illinois.

## NEW YORK CLAY NEWS.

New York, August 14.—According to advices received from Albany the various branches of the clay-working industry in New York State experienced an unprofitable season during 1911 reports State Geologist John M. Clarke. Aggregate production for the year was valued at \$9,751,659, a decline of about 15 per cent, from the total of \$11,518,982 recorded in 1910.

Hudson River brick plants made the poorest record of any branch, as the yards had to carry over heavy stocks from 1910. Building brick held first place in the industry, the total product reaching \$5,472,000 in value. The material next in value to building brick was pottery.

## MILWAUKEE CLAY NEWS.

Milwaukee, Wis., August 12.—Fire in the yards of the Jefferson Brick & Tile Company, of Jefferson, Wis., recently caused considerable damage and made it necessary to close the yards for a few days.

Craney & Spaulding, brick manufacturers of Kenosha, Wis., recently experienced a loss of about \$500, when fire destroyed several sheds in their yards. The sheds are now being rebuilt.

The Manitowoc Clay Company, of Manitowoc, Wis., now has two artesian wells, which it did not possess until a few days ago. The two wells were drilled several years ago, but they never delivered the water to the surface until after the explosion of a dynamite shed on the Maresch farm, across the river and half a mile from the brick yards. The wells are now throwing water three feet above the surface of the ground.

Cayuga, Ind., August 21.—W. H. Starbuck has been appointed receiver for the Cayuga Brick & Coal Company upon petition of Pearl Vansant, who filed a claim of \$100 for labor. The liabilities are said to be \$22,000. The company was unable to pay the miners who quit work, necessitating the closing of the brick plant. The receiver will operate the plant, pay off the indebtedness and dispose of the \$52,000 brick on hand.

Riggs Clay Products Company, of Sullivan, has been incorporated with a capital stock of \$20,000, to manufacture from clay. The incorporators are J. R. Riggs, C. L. Davis and Felix Jones.



W. M. Burchfield, the liveliest man in Rochester, N. Y., who makes and markets "Composite" bricks, says that they are still plugging away turning out from 46,000 to 48,000 brick a day, and more than 1,000 concrete blocks, and that business is good, although there is always room for a few more.

The North Indiana Brick Company, at Michigan City, Ind., was bought recently by the Jackson interests at Saginaw, Mich., is now in full operation. B. L. Blanchard is its manager. This company uses the lake sand from dunes on their property, and the Mitchell lime, manufactured by the Mitchell Lime Company, of Mitchell, Ind.

W. E. Plummer, of the Buffalo Sandstone Brick Company and the live-wire secretary of the American Association of Manufacturers of Sand-Lime Products, was in Chicago recently. As usual, he makes a happy spot wherever he goes, and he is still enthusiastic in the expansion of demand for sand-lime brick in the great Buffalo market.

E. W. Lazell, Ph. D., prominent technical expert in cement, lime and sand-lime brick, has moved his labors to the Pacific Coast and now resides at Portland, Ore. Edwards & Lazell, chemical and efficiency engineers, is the style of the firm, and our readers will recognize Mr. Edwards as one of the first missionaries from the East that ever went to the Pacific Coast to study the technology of lime and cementitious materials.

H. W. Terry, of the Harbour Brick Company, of Toronto, claims that Toronto is the best brick center on the American continent, and says that the demand for sand-lime brick in Toronto is steadily growing and at the top of the heap. They are making preparations for the annual brick convention this fall, and look for a full attendance, as there is always something doing in Toronto, which makes it one of the most attractive cities in America.

W. J. Carmichael, manager of the Sand-Lime Brick Department of the American Clay Machinery Company, covers the field more thoroughly than any other man. He is in touch with the successful commercial development of sand-lime brick, not only in the United States, but in Cuba, Mexico and the Hawaiian Islands. The one thing about friend William's trail, he always leaves behind him the traces of his own enthusiasm and the successful working out of the manufacturer's problem, so that there are a bunch of successful plants that have his name-plate prominently in sight.

## ILLINOIS OUTPUT IN YEAR \$9,765,051.

The advance census bulletin of W. M. Steuart, chief statistician for manufacturers, shows that in 1910 in Illinois there were 340 brick and tile plants, employing 7,347 persons. Of these, 384 were proprietors and firm members, 242 salaried officers, superintendents and managers, 117 male clerks, 30 female clerks, and 6,574 classed as wage earners. The maximum month was June when 8,302 wage earners were employed, and the minimum in January, when 3,795 were at work. The plants were capable of developing \$36,013 primary horsepower. A capital of \$18,495,247 was represented, while the total expenses were \$8,285,610. Of this \$6,686,256 went for material, exclusive of fuel and rent of power. The value of the products was \$9,765,051. Value of \$7,273,692 was added by manufacture.

The St. Francois Crushed Granite Company, of Knob Lick, Mo., has been incorporated with capital stock of \$4,000. The incorporators are C. B. Scott, Ed. Henderson and M. W. Manley.

The Mineral Wells Crushed Stone Company, of Mineral Wells, Tex., has been incorporated with capital stock of \$30,000. A crusher has been installed with a capacity of twelve ears of limestone a day.

The Fond du Lac Pressed Brick Company has been reorganized under the name of the Fond du Lac Brick Company and the capital stock of the company has been increased from \$50,000 to \$75,000.



### HARD WALL PLASTER.

The dealer who will remember the principles upon which the set of gypsum plasters depend will always be in a position to reason correctly in connection with most of the problems that may come up in his work of selling plasters.

In the first place, he must not confine the chemistry of gypsum plaster with that of lime, with which he is part to be more familiar, if he is new to the hard wall plaster business.

The setting of lime mortar is due to the taking on by the quick lime of the carbon dioxide present in the air.

Gypsum plaster sets because the water present in the mortar unites with the powdered plaster and strong interlocking crystals grow from this union.

The rate of growth of these crystals is governed by the retarder that is put in the plaster before it leaves the mill.

First of all, keep your eye on the water that is added to the dry plaster in making mortar. Don't let the plaster dry out and lose this water before the plaster has used all that it requires for the growth of the interlocking crystals. If it does dry out before the crystals have made their growth, the plaster will be dry and crumbly.

Very rarely, indeed, it is the manufacturer's fault in mixing his ingredients in such proportions that the drying-out process takes an unreasonably long time. Much more often if there is trouble about soft plaster, the cause is found in the dry, warm weather, with openings in the building which permit air currents to lick up the water that the plaster needs.

Of course you can get soft plasters any time from using too much loamy sand.

In the next place, it should be remembered that the plaster crystals will grow more rapidly if there are particles of the same material in the mix which will serve as nuclei, or centers, for the crystal's growth. The old plaster in a mortar box that has not been cleaned before using furnishes just such particles for starting the growth of the crystals. As the manufacturer has timed his plaster to set without such help, the first mix or two in the mortar box will set too fast and the plasterer may get excited and condemn the plaster; whereas he is wholly at fault for not cleaning his box, and for thus sinning against one of the fundamental laws of nature which govern the set of hard wall plasters.

The plasterer should read the directions which every manufacturer furnishes in abundance. These directions are simple; not one-fifth as complicated as those which every housewife must observe when she makes a batch of bread. But because they are simple they cannot be ignored. They are fundamental, and the big basal principles that underlie the workings of any substance must be respected; for nature never modifies her laws to meet the whims of carelessness of man.

Just at this point it will be easy to make plain why every manufacturer of hard wall plasters insists that his plaster must not be retempered after it has once begun to set up in the mortar box.

As has just been said, the set of the plaster is due to the growth of small crystals through the mass, somewhat after the nature of the growth of frost crystals on a window pane. After these crystals have started to grow in the mortar box, which is shown by the fact that the plaster has begun to set up, they can be broken up by working with the hoe and adding more water. This softens the mass so that it can be applied to the wall. The plaster crystals will not grow again, however, with the strength and vigor that they grew in the first place and a soft, crumbly wall is apt to result.

It is much better for all concerned to throw away plaster that becomes too stiff to handle, rather than to make any attempt to soften it up.

### 40 TRAINS OF GYPSUM IN ONE BLAST.

One of the wonders in mining was witnessed a few days ago on the property of the Nephi Plaster & Manufacturing Company, when a single shot brought down 50,000 tons of gypsum ore. That is 1,000 cars, or forty trains of twenty-five carloads each. To add to the marvel of the shot, exhaustive sampling of this ore and shipments which have been made since prove that it will average at least 99 per cent pure. Carloads of it went as high as 99.5 gypsum, says the Lake City, Utah, Herald-Republican. This was undoubtedly the largest blast of its kind in the history of the world. During the past

two or three years the Nephi Plaster Company has had some big ones, ranging in tonnage from 5,000 to 18,000 tons at a single shot, but none of these approached in magnitude the blast of last week.

This gypsum hill had been tunneled by a sixty-foot adit from which thirty-foot drifts were sent out both ways. In these workings was stored in a systematic manner 6,000 pounds, three tons, of black powder. The blast was set off by electricity. The powder had been so cleverly distributed that when the explosion occurred the side of the hill was simply raised up and set down on the quarry platform below. This was covered from a few feet up to fifty to sixty feet deep. As it fell, the ore was shattered into a million pieces, or in just the right kind of shape for shipment to the Portland Cement plant at Salt Lake, or for the grinding machines at the plant near Nephi. Here the product is worked up into building ornaments for interior and exterior decorations and the like, or converted into high grade plaster of paris.

It is stated that Utah consumes not more than 10 per cent of the product of the Nephi Plaster Company alone, and that the other 90 per cent must go to Portland, San Francisco, Los Angeles and other cities, nearly 1,000 miles away, where building is still making rapid strides. Owing to its extremely cheap method of mining, also to the unusual purity of the crude ore, and the excellence of its every facility and the modernness of its plant, machinery and the equipment in general, the Nephi Plaster Company is able to hold its own against the powerful rival companies of the East.

### SAN FRANCISCO PLASTER NEWS.

San Francisco, Aug. 12.—The first car of plaster shipped to Los Angeles from the new mill of the Sunset Plaster Company at Fillmore, Cal., went out July 1. Some material is also being shipped to contractors at Oxnard, Cal. A blower system of dust collection has been installed in the mill, preventing any complaint of escaping dust from the surrounding country.

Mr. Richardson, traveling for the Arden Plaster Company, of Los Angeles, has been visiting for several days at the office of Leonard Berrien, the San Francisco agent, in the Monadnock building. The plant at Arden, Nev., was completely rebuilt within thirty days after its destruction by fire, and has a daily capacity of 200 tons of "the finest hard wall plaster in the country." Mr. Berrien is conducting both a wholesale and retail business for the company here, with a warehouse at Eighth and Hooper streets. Arden plaster has been used in some of the finest buildings erected here since the fire of 1906, and while shipments were interrupted for a while after the destruction of the mill, everything is now moving in good shape, with excellent prospects for the fall.

J. J. Philbin is doing the plastering in the Sierra Investment Company's new building at Market and Brady streets, Macdonald & Applegarth, architects, on a figure of \$11,205.

### U. S. G. MAKES PURCHASE.

The Devil's Slide property, near Electric, Mont., fifty miles south of Livingston, has been purchased from an option by the United States Gypsum Company from the receivers of the Montana Coal & Coke Company. Work will commence at once on the property and employment will be given to from fifty to seventy-five men. The property involved is only that portion of the land formerly belonging to the Montana Coal & Coke Company, which contains the gypsum rock and sufficient land for the building of the factory.

With certain manufactured side lines which the company anticipates adding later, the number of men employed will be eventually increased to between 200 and 300.

Work on the factory will commence immediately and soon the U. S. G. Company will be shipping gypsum from their plant at Electric, if the investigations conducted are satisfactory.

Announcement is made by President J. J. Farrar, of the Rapid City Gypsum, Lime & Portland Cement Company, Rapid City, S. D., that a plant will be installed at that point immediately. It will cost approximately \$200,000, and it is hoped to have it in operation by October 12. The plant will have a capacity of 5,200 tons and employ about thirty men.

The Royal Gypsum Company, New York City, has been incorporated with a capital stock of \$100,000. The incorporators are J. McLaren, E. J. Forhan and F. B. Knowlton.

Subscriptions to the amount of \$75,000 have been taken for the purpose of organizing the Centerville Gypsum Company at Centerville, Iowa. The officers of the new company are Claus Johnson, president and manager; I. L. Funk, vice-president; Otto Pier-

son, secretary; G. M. Barnett, treasurer. The directors are Claus Johnson, Peter Lindahl, I. L. Funk, R. A. McKee, Thur Lungren, Axel Olson and E. A. Wells. It was decided that enough prospecting has been done and operations would start at once.

The Gypsum Tile & Plaster Manufacturing Company, Indianapolis, Ind. Capital stock \$35,000; to manufacture tile and gypsum plaster. Incorporators, H. H. Pierce, C. F. Pierce and H. H. Dupont.

Acme Manufacturing Company, Boston, Mass., has been incorporated, to deal in plaster work; capital stock \$25,000. Incorporators, William L. Elliott, Newton; Frank B. Busiel, Somerville, and Theodore H. Sweetser, Arlington.

Fire recently destroyed the Great Eagle mixing plant of the Grand Rapids Plaster Company, entailing a loss of about \$40,000. The structure was 300x50 feet, and had been built only about four years. Despite the great handicap of the fire, General Manager James Leenhouts stated that all orders of the firm will be taken care of promptly. The firm owns two other plants at Grandville, but half a mile from the Great Eagle plant.

Fire which broke out in the office of the Plasteron Wall Board Manufacturing Company's plant at Tonawanda, N. Y., gutted the office and damaged the plant to the extent of about \$4,000.

### KEOKUK DAM.

(Continued from Page 23.)

great ice fender which is to curve for half a mile from the upper western corner of the power house to the Iowa shore.

From the Illinois bluff at Hamilton to the upper end of the sea wall at Keokuk, Iowa, including the dam, substructure of the power houses, lock walls and dry dock, will run a solid stretch of concrete two miles long without a bar of steel to reinforce it. This is claimed to be the longest monolith of concrete ever constructed. Including the ice fenders, the total distance one may eventually walk along this imposing promenade, fifty feet above water surface, will be 13,185 feet, or fifteen feet less than two miles and a half.

This two-mile chunk of concrete is the mammoth darling of the well known engineer, Hugh L. Cooper, the moving spirit of the Mississippi River Power Company. His handiwork and brain work are seen everywhere, in varied forms of labor-saving machinery, such especially as concrete mixers and dumpers. He will have nothing to do with reinforced concrete, and the superstructure of the power house, wherein are to be installed the electrical apparatus, as well as the transmission lines to St. Louis, Burlington and other cities, are under the supervision of the Stone & Webster Engineering Corporation, of Boston. When I first saw Mr. Cooper coming toward me, with his broad shoulders, square jaws and massive build, he will pardon me if I say that he bore with him all the marks of solid monolith concrete.

The work being done by Engineer Cooper is naturally the most impressive in the correlated system, and no feature more so than the immense scroll chambers, some forty feet in diameter and fifteen in number in which the turbine wheels will revolve and set in motion the electric generators above. Clear of water, now is the time to see them in all their curved beauty and cool grandeur. When you enter a chamber through one of the four intakes at the base of the power house you see some twenty-five feet above you a huge steel ring imbedded in cement to which will soon be hanging the turbine apparatus of half a million pounds. This may be your last chance on earth to see this gigantic, cool, gray nautilus chamber, into which will soon come the tremendous swirl of rushing waters from above. Little wonder that Engineer Cooper and all connected with the work are proud of such.

Eventually thirty of these turbines will be installed—fifteen in each power house—so that each carries about 10,000 horse-power with it.

In exchange for the 300,000 horse-power guaranteed at this point by the Father of Waters, which is the property of the national government, or the people collectively, the private construction companies engaged in this development are passing over to Uncle Sam the lock, one of the largest in the world and the dry dock, the largest in fresh water, and agreeing to operate them both perpetually—this agreement including power for all the machinery employed in the machine shops of the dry dock, or boat-building plant. And these private companies can well afford this apparent generosity.

Anywhere from \$30,000,000 to \$35,000,000 are involved in this vast interior development of electric power and light.

It is plain that as an engineering feat it runs neck and neck with Niagara and Panama.

# BOOKS FOR THE TRADE

## Architects and Engineers

- Building Construction and Superintendence—Masonry Work**  
F. E. Kidder. Price \$6.00.
- Hydraulic Engineering**  
F. E. Turneaure and Adolph Black. Price \$3.00.
- Analysis of Elastic Arches of Steel, Masonry and Reinforced Concrete**  
Joseph W. Balet. Price \$3.00.
- Theory of Steel-Concrete Arches and Vaulted Structures**  
Wm. Cain. Price \$0.50.
- Concrete Country Residences**  
Price \$1.00.
- Graphical Handbook for Reinforced Concrete Design**  
John Hawkesworth, C. E. Price \$2.50.
- Architects' and Engineers' Handbook of Reinforced Concrete Construction**  
L. J. Mensch. Price \$2.00.
- Theory and Design of Reinforced Concrete Arches**  
Arvid Reuterdaal. Price \$2.00.
- Treatise on Concrete, Plain and Reinforced**  
F. W. Taylor and S. E. Thompson. Price \$5.00.
- Concrete Engineers' and Contractors' Pocketbook**  
Wm. F. Tubbing. Price \$1.00.
- Concrete Steel**  
W. N. Twelvetrees. Price \$1.00.
- General Specifications for Concrete Work as Applied to Building Construction**  
Wilbur J. Watson. Price \$0.50.
- Strength of Materials**  
Edward R. Maurer. Price \$1.00.
- Highway Construction**  
Austin T. Byrne and Alfred F. Phillips. Price \$1.00.
- Principles of Reinforced Concrete Construction**  
F. E. Turneaure and E. R. Maurer. Price \$3.00.
- Refrigeration**  
Chas. Dickerman and Francis H. Boyer. Price \$1.00.
- Heating and Ventilation**  
Charles L. Hubbard. Price \$1.50.
- Plumbing**  
Wm. Beall, Gray and Chas. B. Ball. Price \$1.50.
- Estimating**  
Edward Nichols. Price \$1.00.
- Building Superintendence**  
Edward Nichols. Price \$1.50.

## Cement and Lime Manufacturers

- Bungalows, Camps and Mountain Houses**  
Price \$2.00.
- Manufacturer of Hydraulic Cement**  
A. V. Bleininger. Price \$1.25.
- Limes, Cements and Mortars, Concretes, Mastics, etc.**  
G. R. Burnell. Price \$0.60.
- Portland Cement; Its manufacture, testing and use**  
David B. Butler. Price \$5.00.
- Instructions to Inspectors on Reinforced Concrete Construction**  
Geo. F. Carver. Price \$0.50.
- Lime, Mortar and Cement**  
A. I. Dibbin. Price \$2.00.
- Cements, Limes and Plasters**  
Edwin C. Eckel. Price \$0.60.
- Practical Treatise on Limes, Hydraulic Cements and Mortars**  
Gen. Q. A. Gillmore. Price \$4.00.
- Mortars, Plasters, Stuccos, Concretes, Portland Cements and Compositions**  
F. Hodgson. Price \$1.50.
- Experimental Researches upon the Constitution of Hydraulic Mortars**  
H. LeChatelier. Price \$2.00.
- Concrete Factories**  
Robert W. Lesley. Price \$1.00.
- Portland Cement; Composition**  
Richard K. Meade. Price \$3.50.
- The Constitution of Hydraulic Cements**  
S. B. Newberry. Price \$0.50.
- Manufacture of Concrete Blocks**  
Wm. M. Torrance and others. Price \$1.50.
- Practical Cement Testing**  
W. Purves Taylor. Price \$3.00.
- Notes on the Testing and Use of Hydraulic Cement**  
Fred P. Sutcliffe. Price \$1.00.
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G. R. Redgrave and Charles Speckman.
- Gas Engines and Producers**  
L. S. Marks and S. S. Wyer. Price \$1.00.
- Foundation and Concrete Works**  
E. Dobson. Price \$0.60.

## Cement Users

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Frank Harvey Eno. Price \$1.00.
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Henry Faia and D. B. Butler. Price \$1.20.
- Cements, Mortars and Concrete**  
Myron C. Falk. Price \$2.50.
- Reinforced Concrete**  
W. H. Gibson and W. L. Webb. Price \$1.00.
- Concrete System**  
F. B. Gilbreth. Price \$5.00.
- Hand Book of Cost, Data**  
Halbert P. Gillette. Price \$4.00.
- Concrete Construction**  
H. P. Gillette and C. S. Hill. Price \$5.00.
- Cement Workers' and Plasterers' Ready Reference**  
H. G. Richay. Price \$1.50.
- Notes on Testing and Use of Hydraulic Cement**  
Fred P. Spalding. Price \$2.00.
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- Concrete**  
Edward Godfrey. Price \$2.50.
- Reinforced Concrete**  
C. F. Marah and Wm. Dunn. Price \$7.00.
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W. Patton. Price \$5.00.
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Thomas Potter. Price \$3.00.
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Louis C. Sabin. Price \$5.00.
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H. B. Andrews. Price \$2.00.
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Homer A. Reid. Price \$5.00.
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F. D. Warren. Price \$2.50.
- Sewers and Drains**  
Anson Marston. Price \$1.00.
- Concrete**  
Edward Godfrey. Price \$2.50.
- Popular Handbook for Cement and Concrete Users**  
Myron H. Lewis & A. H. Chandler. Price \$2.50.

**ROCK PRODUCTS, 537 South Dearborn Street, CHICAGO**

**CLASSIFIED ADVERTISEMENTS—Test Rock Products' Columns. If You are in Need Of, or Wish to Sell Anything, or Desire Employes or Employment, a Classified Ad in Rock Products Will Accomplish the Desired Result**



It must be a source of satisfaction to see the fine product of your plant. But—how can the trade get that product unless you advertise?

**ROCK PRODUCTS  
IS YOUR PAPER**

**"The Public Be Pleased"**

Reds

Browns

Yellow

Blacks

**CALVERT MORTAR COLORS**

Sold to Dealers Only by  
JAS. B. MACNEAL & CO., Makers  
BALTIMORE, MARYLAND

Distributors at NEWARK, N. J.  
WOLFE & MISHER, 501 and 502 Essex Bldg.

## Anchor Brand Colors

**For Mortar, Cement and Brick**

**Brown, Black, Red and Buff  
Strongest and Most Durable**

Manufactured by **C. K. Williams & Co.**  
Correspondence Solicited Easton, Pa., U.S.A.

## GOOD ROADS CONSTRUCTION CO.

General Offices, Exchange Bldg., Memphis, Tenn.

Our Quarry Facilities are of the Best.

We build municipal street work, turnpikes and give attention to all construction work of a similar character. Our organization is backed by twenty-five years experience, and we are in a position to furnish specifications and estimates promptly. Individuals, Corporations or Municipal authorities are invited to correspond with us.

## CLASSIFIED ADVERTISEMENTS

Advertisements will be inserted in this section at the following rates:

For one insertion ..... 25 cents a line  
For two insertions ..... 45 cents a line  
For three insertions ..... 60 cents a line

Eight words of ordinary length make one line.  
Heading counts as two lines.  
No display except the headings can be admitted.

Remittances should accompany the order. No extra charges for copy of paper containing the advertisement.

### EMPLOYEES WANTED

Wanted—Practical lime-burner to take charge of plant immediately. Must have experience and be well recommended. Address 904, care ROCK PRODUCTS.

Wanted—Capable and energetic Manager for limestone quarry. Steady employment and good salary to a man that can show good results. Men addicted to use of intoxicants not wanted. State age, experience and from whom recommendation can be had.

Address FLUX, care ROCK PRODUCTS.

Wanted—a competent Foreman to take charge of Stone Quarry and Crushing Plant. Applicant must enclose letters of reference from former or present employers.

Address C. P. WORKS, care ROCK PRODUCTS.

Quarry Foreman wanted—for Lime quarry.  
Address 908, care ROCK PRODUCTS.

### EMPLOYMENT WANTED

Position as Superintendent of Quarry and Crushing Plant. Fifteen years' experience in all lines of the work. Reference.

Address 906, care ROCK PRODUCTS.

Position as Superintendent or Manager wanted in the South by an experienced man in lime crushing plant and hydrate mill. Understands machinery and handling men. Permanent position desired. Will furnish reference.

Address 907, care ROCK PRODUCTS.

Position as superintendent wanted by a young man; seventeen years' experience in the limestone and crushing business. Understand hydrating and is familiar with gas producers. Results guaranteed. Will furnish best of reference. Address JOHN, care ROCK PRODUCTS.

Position wanted as Mine Foreman or Superintendent of Gypsum Mine, by married man, 20 years' experience. Strictly sober, technical graduate, mine foreman certificate, best references. Address 905, care ROCK PRODUCTS.

#### POSITION AS SUPERINTENDENT.

Position wanted as superintendent of lime works, by a hustler of fifteen years' experience, capable of taking full charge of plant, including quarry, and can be depended on at all times to keep things up to the minute, and in working order. Can furnish best of references from former employers and produce results. I am thoroughly familiar with Gas Producer and direct fire kilns. Also Hydrate Mill and Stone Crusher.

Address "RESULTS," care ROCK PRODUCTS.

Open for a proposition as Sales Manager for New York or New England territory.

WALTER S. SHELDON,

P. O. Box 410, Madison Square P. O., New York, N. Y.

### BUSINESS OPPORTUNITIES

One Merillat Culvert Core, molds all sizes of Concrete Culverts. Send for Free Book on Concrete Culvert Construction.

Merillat Culvert Core Co., Box R, Winfield, Iowa.

#### STONE LAND.

For Sale—Several tracts of high grade limestone. Splendid location on water and railroad, suitable for flux, lime, cement, or for investment as prices are right. Herman Besser, Alpena, Michigan.

#### EXCLUSIVE CONTROL GIVEN.

Under our confidential trade note formulas and processes for the manufacture of concrete marble, decorative concrete, marble lumber, composition flooring, etc., by city, county or state license or by shop right license. No machinery required. Little capital, practically as yet. No competition. A profitable business proposition. For particulars address Art Stone Co., Box C, Waynesboro, Pa.

Wanted—Responsible party to take half interest in one of the best rock crushing plants in the West who can invest \$25,000 to \$30,000. Money to be expended in enlarging plant and increasing business to meet present demands. Address

POST OFFICE BOX 588, Kansas City, Mo.

A man with some experience in the production of sand, with capital to incorporate company in the South, where building operations continue the year around. 140 acres of valuable sand deposit, with railroad siding running through the property. More business than can be handled at present. Want to enlarge operations.

Address 909, care ROCK PRODUCTS.

### MATERIAL FOR SALE

For Sale—Granite waterproofing paint for coloring and waterproofing concrete block or other buildings at low cost. Write us for color card and prices. The Jaeger Machine Company, Columbus, Ohio.

### MACHINERY FOR SALE

#### BARTEN PROCESS AND MACHINE

For making concrete building blocks of a slushy, muddy mix, also of a moist mix. 1,000 machines in one, and by far the lowest in price. Send for catalogue. W. H. Barten, Gordon, Nebr.

For Sale—Boilers, Tanks, Stacks, Pumps, Heaters, Injectors, Engines, Supplies and Repairs for Mills, Hotels, Public Works, etc. Lombard Iron Works, Augusta, Ga.

#### ENGINE AND CARS.

One 9"x14" Porter Dinkey Engine. Eight 3-yard Peter Dump Cars. All in first-class condition and ready for Service. Write Ben A. Dickson, Monon, Indiana.

For Sale—Bargain: No. 2 Foote concrete street paying mixer on trucks with steam engine and boiler. Price \$275.00 Cost new \$900.00. Condition guaranteed first class. Address WILSON MACHINERY CO., 3127 Shields Ave., Chicago, Ill.

#### FOR SALE.

No. 4D and No. 3D Gates Crushers, good condition. No. 3 ..... \$275.00  
No. 4 ..... 550.00  
100 Stone Cars—Steel.

FRED A. PECKHAM,  
20 W. Jackson Blvd., Chicago, Ill.

FOR SALE—Eclipse concrete mixer No. 2, mounted on trucks with gasoline engine; all in good order. One-half first cost if sold at once.

L. T. MUNSON, Monroe, Iowa.

One Gates 5-B bucket elevator, 60 foot centres, for crushing stone. One Columbus 16 horsepower gasoline hoisting engine. One saddle tank locomotive, 36-inch gauge. Newton Engineering Co., Iron Mountain, Mich.

### MACHINERY WANTED

#### WANTED TO BUY.

At once, several Water Lyner mine drills. Address FRED A. PECKHAM, 20 W. Jackson Blvd., Chicago, Ill.

Wanted to purchase—No. 10 Austin, Gates or McCully crusher with screen and elevators. Must be in first-class condition and cheap. Address Western Crushed Rock & Concrete Company, Kansas City, Mo.

### PLANT FOR SALE

## Stone Crushing Plant For Sale, Fully Equipped

The Plant of the Biggsville Crushed Stone Company, together with lease covering 84 acres of stone lands. Stone of best quality, and very great depth. Plant along main line C. B. & Q. Railroad. Highest grade limestone dust, which is sold as fast as can be made. Ready market for all material made.

#### Best of reasons for selling.

#### Correspond with

**Biggsville Crushed Stone Company**  
Biggsville, Illinois

Plant and property of New Jersey Lime Company at Hamburg and McAfee, N. J., is offered for private sale. 350 acres high carbonate white lime stone, 15 efficient modern kilns, Clyde hydrate mill. Unequalled shipping facilities and access to largest markets for lime and limestone. For terms and particulars address

CONWAY, WILLIAMS & KELLY,  
66 Broadway, New York, N. Y.

The plant of the Biggsville Crushed Stone Company, together with lease covering 84 acres of stone lands. Stone of best quality, and very great depth. Plant along main line C. B. & Q. Railroad. Highest grade limestone dust, which is sold as fast as can be made. Ready market for all material made.

Best of reasons for selling. Correspond with  
**BIGGSVILLE CRUSHED STONE CO.**,  
Biggsville, Ill.



### DR. OTTO SCHOTT

Consulting Engineer and German Cement Expert  
You are invited to visit our booth at the New York Cement Show, Madison Sq. Garden, Jan. 29-Feb. 3.

Office: Fifth Avenue Bldg., Madison Square, New York

### Patents and Trade-Marks

Personal, Expert Services. :: Fair and Reasonable Rates. :: 25 Years Before United States Patent Office. :: :: ::

C. T. BELT, Warde Bldg., Washington, D. C.

**C. L. CARMAN** Consulting Engineer  
Specialist in  
Design of Portland Cement, Stone Crushing Plants Constructed and Remodeled  
Room 919 Insurance Exchange Bldg., Chicago

## Stone Crushing and Power Plants.

**DESIGNED AND ERECTED**  
Special reports made on Quarries and Plants not producing results.

PRESTON K. YATES  
Consulting Engineer

30 CHURCH ST.  
N. Y. C.

**F. A. Jones, M. E.**  
Gypsum Specialist

Consulting, Mechanical and Chemical Engineer, in Designing, Construction and Operation of Plaster Mills (Kettle or Rotary Process), Elevating, Conveying and Crushing, Mechanical, Drying, (Kiln or Rotary) and Hydrating Plants, Power Houses, Pumping Stations and Water Powers.  
Examination, Tests, Analysis and Reports, Plans, Specifications and Superintendence of Construction.

311-C FEDERAL BLDG.

**YOUNGSTOWN, OHIO.**

**Let Us List Your Wants on This Page**  
A A A

**Try Our Columns Next Month**



*Stained with Cabot's Shingle Stains and lined with  
Cabot's Sheathing Quilt. Robert W. Spencer, Jr.,  
Architect, Chicago*

## **Cabot's Building Specialties**

**Cresote Stains** for Shingles, Siding, Clapboards, Trimmings, Boards, and all other Exterior Woodwork.  
**Waterproof Cement and Brick Stains** for waterproofing and artistically coloring cement and brick buildings.  
**"Quilt"** for lining houses to keep out cold or heat, for sound-deadening in floors and partitions, and for insulating cold storage and refrigerators.  
**Conserve Wood Preservative** for preserving Posts, Planks, Sills and all other exposed timbers. Mortar Colors, Protective Paints for Metals. Waterproof Compounds, etc.

**SAMUEL CABOT, Inc., Mfg. Chemists**  
**BOSTON, MASS., U. S. A.**

**1133 Broadway,  
New York**      **350 Dearborn Ave.  
Chicago**

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Advertisers—Take Notice**

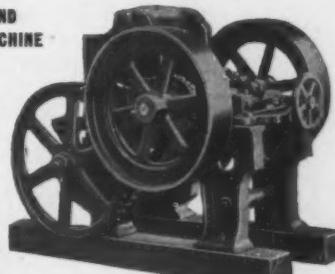
### **Changes of Copy**

Must be in this office by the Thirteenth of the month, if proofs are desired; if no proofs are required the desired changes can be made if copy is received by noon of the Seventeenth.

## New Advertisements

To insure proper classification, should be in this office by the Fifteenth of the month, but they can be inserted in the last form going to press if received by the Nineteenth. The punctual publication of the paper admits no deviation from these rules. Advertisers are earnestly requested to co-operate with us.

**THE FRANCIS PUBLISHING COMPANY**  
537 South Dearborn Street, Chicago, Ill.



No. 2 Receiving Opening 12x5 inches  
Weight 1,800 lbs. 3 Horse Power.

**Net Price**  
**\$90**

Gross

Guaranteed and sent on ten days' working trial, **send in your Order** and pay after you have tried it out. Limestone, Lime, Fieldstone, Flint, Marble, Granite, Sandstone, Oyster shells, Rock, Etc., can be reduced at one operation to the fineness of sand, or to  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{5}{8}$ ", 1" or  $1\frac{1}{2}$ " for roads, concrete materials and fertilizing purposes.

**H. MARTIN BRICK MACHINE MFG. CO.**  
**Lancaster, Pa., U. S. A.**

## **Some Bargains in Quarry Equipment**

One No. 10 McCulley Crusher.  
 One No. 8 McCulley Crusher.  
 One No. 8 Gates Style D Crusher.  
 Two No.  $7\frac{1}{2}$  McCulley Crushers.  
 Two No. 6 McCulley Crushers, manganese fitted.  
 Two No. 6 Gates Crushers (one manganese fitted).  
 Two No. 5 McCulley Crushers, manganese fitted.  
 Two No. 5 Austin Crushers.  
 Two No. 4 Austin Crushers.  
 One No. 4 McCulley.  
 Six No. 3 McCulley, Austin and Gates Crushers.  
 Two No.  $7\frac{1}{2}$  Gates Crushers.  
 All of the above are complete with screens and elevators,  
 but will be furnished with or without as desired.  
 4-No. 4 Champion Jaw Crushers and elevator—portable.

- 1—No. 10 Western Jaw Crusher and elevator—portable
- 1—10x18 Fort Wayne with elevator—portable.
- 1—each 10x16 and 15x24 Buchanan—on skids.
- 13—9x14, 36" gauge, Porter Dinkies.
- 3—9x14, 36" gauge, Vulcan Dinkies.
- 4—9x14, 36" gauge, Davenport Dinkies.
- 1—18-ton Porter.
- 1—10x16, 36" gauge, Porter Dinkie.
- Several larger switches and locomotives.
- 2—No. 0 Thew Shovels.
- 3—Little Giant Traction Shovels.
- 2—Model 20 Marions.
- 2—45-ton Bucyrus.
- 5—65-ton Bucyrus.
- Several larger shovels of standard makes.

**Write for Our Spring Bulletin of Bargains in Heavy Equipment Before You Buy. A Postal-Card Brings It.**

### **MARSH COMPANY.**

## **971 Old Colony Building.**

CHICAGO, ILLINOIS

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ROCK PRODUCTS

## *Index to Advertisements*

AUGUST 22, 1912

# CLASSIFIED BUSINESS DIRECTORY

## BAGS.

Bates Valve Bag Co.  
Urachel Bates Valve Bag Co.  
West Jersey Bag Co., The

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Miller & Co., Clifford L.

## BAG PRINTERS.

Koehler Co., Hy. L.

## BELTING.

American Fabric Belting Co.  
Chicago Belting Co.  
Link-Belt Co.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Company.

## BUCKETS, DUMPING AND GRAB.

Atlas Car & Mfg. Co.  
Hendrick Mfg. Co.

## CABLES.

American Steel & Wire Co.

## CEMENT BRICK MCHY.

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Martin-Henry Brick Machine Mfg. Co.

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Improved Equipment Co.  
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American Clay Working Mch. Co.  
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Cummer, F. D., & Son Co.

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Northwestern Steel & Iron Works.

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Northwestern Steel & Iron Works.  
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## CONCRETE BRICK MACHINERY.

Peerless Brick Mach. Co.  
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Read & Morrell, Inc.

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Ersham, J. B., & Sons Mfg. Co.  
Jeffrey Manufacturing Co.  
Link-Belt Co.  
McLanahan Stone Machine Co.  
Stephens-Adamson Mfg. Co.  
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Williams Pat. Crusher & Pulverizer Co.

## CUT GEARS.

Nuttall, R. D., Co.

## DERRICKS.

Sasgen Bros.

## DRILLS.

Cyclone Quarry Drill Co.  
Howells Mining Drill Co.

## DRYERS.

American Process Co.  
Bartlett, C. O., & Snow Co.  
Cummer, F. D., & Son Co.  
Ruggles-Coles Eng. Co.  
Worrell, S. E.

## DUMP CARS.

Atlas Car & Mfg. Co.  
Austin Mfg. Co.  
Stephens-Adamson Mfg. Co.

## DUMP WAGONS.

Troy Wagon Works Co.

## DYNAMITE AND POWDER.

Aetna Powder Co.  
DuPont Powder Co.

## ENGINEERS.

Bacon, Earl C.  
Buckbee, J. C., Co.  
Carman, C. L.  
Dull, Raymond W., & Co.  
Fuller Engineering Co.  
Improved Equipment Co.  
Schott, Dr. Otto.  
Smith & Co., F. L.  
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## FIRE BRICK.

Carolina Portland Cement Co.  
Houston Bros. Co.  
Improved Equipment Co.  
Louisville Fire Brick Co.  
Union Mining Co.

## FURNACES FOR SPECIAL PURPOSES.

Improved Equipment Co.

## GAS AND GASOLINE ENGINES.

Cyclone Quarry Drill Co.  
Novo Engine Co.

## GAS PRODUCERS.

Improved Equipment Co.

## GOOD ROADS.

Good Roads Construction Co.

## GEARS.

Caldwell, H. W., & Son Co.  
Nuttall, R. D., & Co.  
Taylor Iron & Steel Co.

## GYPSUM—PLASTER.

Carolina Portland Cement Co.  
Cottonwood Fibre Co.  
King, J. B., & Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Plymouth Gypsum Co.  
Reeb, M. A.  
U. S. Gypsum Co.  
Wolfe & Misner.

## GYPSUM SPECIALIST.

Jones, F. A., M. E.

## HARDENING CYLINDERS.

American Clay Machinery Co.

## HYDRATING CYLINDERS.

Kritzer, The, Co.  
Miscampbell, H.

## HOTELS.

York, New York.

## HYDRATING MCHY.

Kritzer Co., The.  
Weller Mfg. Co.

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Farnam-Cheshire Lime Co.  
Fowler & Pay.  
Houston Bros. Co.  
Kelly Island Lime & Trans. Co.  
Marblehead Lime Co.  
Meyer, W. D.  
Mitchell Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Ohio & Western Lime Co., The.  
Scioto Lime & Stone Co.

## LIME, HYDRATED.

Houston Bros. Co.  
Kelley Island Lime & Transport Co.  
Marblehead Lime Co.  
National Lime and Stone Co.  
National Mortar & Supply Co.  
Ohio & Western Lime Co., The.  
Scioto Lime & Stone Co.

## LIME KILNS.

Improved Equipment Co.

## LIME PLASTER.

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## METAL LATH.

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Carolina Portland Cement Co.  
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## PATENT ATTORNEY.

Belt, C. T.

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Johnson & Chapman Co.

## PNEUMATIC TOOLS.

Howells Mining Drill Co.

## PLASTER MCHY.

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Cummer, F. D., & Son Co.  
Dunaling, W. D.  
Ersham, J. B., & Sons Mfg. Co.  
Miscampbell, H.  
Williams Pat. Crusher & Pulverizer Co.

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Bonnot Co., The.  
Bradley Pulverizer Co.  
Jeffrey Manufacturing Co.  
Kent Mill Co.  
Pennsylvania Crusher Co.  
Raymond Bros. Impact Pulverizer Co.  
Sturtevant Mill Co.  
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Atlas Car & Mfg. Co.

## REINFORCED CONCRETE CURB.

Buhler Co., Edward E.

## ROOFING MATERIAL.

Barrett Mfg. Co.  
Carolina Portland Cement Co.  
Houston Bros. Co.

## SAND.

Houston Bros. Co.  
Ottawa Silica Co.  
Union Sand & Material Co.

## SAND AND GRAVEL WASHING PLANTS.

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Dull & Co., Raymond W.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Co.

## SAND-LIME BRICK MCHY.

American Clay Working Mch. Co.  
Miscampbell, H.

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Butterworth & Lowe.  
Dull & Co., Raymond W.  
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# Amatite ROOFING

Mineral Surfaced—  
Needs No Painting

EVERYTHING about Amatite appeals to the man with common sense. He can see its superiority at once—the real mineral surface which never needs painting; the two layers of Pitch which is the greatest waterproofing material known; the two

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We can make Amatite better and cheaper than anyone else on account of our greater facilities, and consequently we sell it at a surprisingly low figure.



Simply the fact that it needs no painting is enough to make a man sit up and take notice—especially the man who has spent time and money in painting and repainting smooth surfaced roofings.

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New York	Chicago	Philadelphia	Boston	St. Louis	Cleveland	Pittsburgh
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### The Perkins Pivoted Bucket Carrier

Is the Best Known Means of Handling Cement Clinker Hot From the Kilns



It is in use by some of the representative cement mills of the country, where it has demonstrated its superiority over other conveyor systems of similar and dissimilar types.

Also adapted to handling crushed stone in certain special situations.

For coal delivery and ashes disposal in power houses it is the most convenient and efficient of modern methods.

*Remember the Perkins is the Non-Spilling One.  
Especially Important in Handling Hot Clinker.*

### The Webster M'f'g Company

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815-817 Fisher Bldg.

(8)

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88-90 Reade Street

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### NEWAYGO SCREEN



#### SCREENS EVERYTHING SCREENABLE

from 4 to 200 mesh.  
Less than 1 H. P. to operate. Large Output.

**PRICE, \$300**

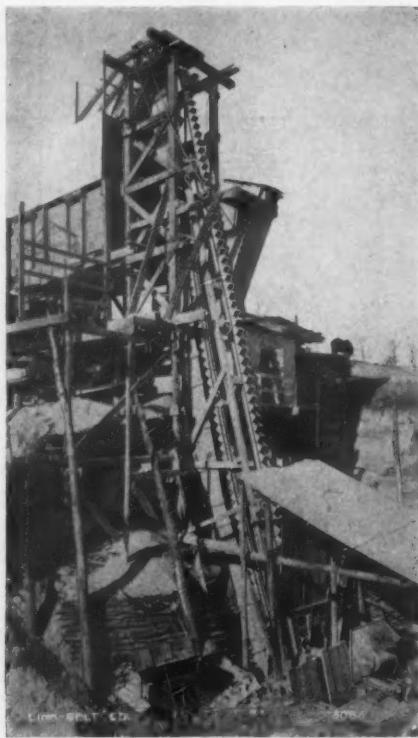
More in use than any other Screen.  
From 1 to 78 used by single concerns.

#### SOLD ON "SALE OR RETURN" CONTRACT

If not satisfactory, even to the color of the paint, may be returned, as per our special "Sale or Return" offer.  
Send for Offer and Catalogue.

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NEW YORK	PITTSBURGH	CLEVELAND	CHICAGO	ATLANTA	LODON
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**LINK BELT  
ELEVATORS  
AND  
CONVEYORS  
FOR HANDLING  
Stone—Gravel—Sand, Etc.**

The illustration shows a Link-Belt Continuous Bucket Elevator, built for the Raritan River Clay Co., Metuchen, N. J., delivering clay to screen, after which it is transferred to railroad cars for shipment. The outfit is simple and efficient.

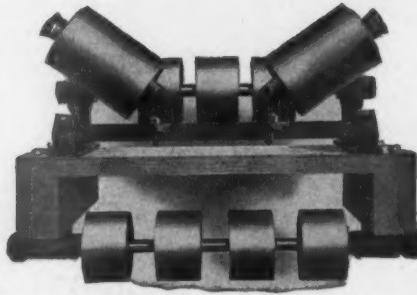
Let us solve your Elevating and Conveying problems. Our 38 years' experience in the design and construction of machinery for the efficient and economical handling of materials of every description is at your service.

WRITE FOR CATALOG. ADDRESS NEAREST OFFICE.

**LINK-BELT COMPANY**  
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Pittsburgh . . . . .	1501-3 Park Bldg.	Denver . . . . .	Lindrooth, Shubart & Co.
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The cost of handling large quantities of material is one of the great problems in any manufacturing plant. To carry Crushed Stone, Lime, Ore, Clay, Sand, Gravel, Coal, etc. by Belt Conveyor means small first cost with large output at the minimum expenditure of labor.

The above design of **Belt Concentrator** has been found entirely satisfactory in every kind of service. It troughs the belt and at the same time provides proper support where most needed to sustain the weight of material being carried.

The Lubricating arrangement is convenient and thorough and the use of grease for lubrication provides not only the best means of lubricating the pulleys but also has the effect of keeping the bearing surfaces clean and providing a dust-seal around the ends of the pulley hubs.

For other Belt Conveyor devices see our

**CATALOG No. 34**

We manufacture Helicoid and Screw Conveyors, Chain and Cable Conveyors for handling Rock, Lime, Sand, etc., also Elevators, Shafting, Couplings, Bearings, Collars, Pulleys, Gears, Sprocket Wheels, Elevator Bolts, etc.

## H. W. CALDWELL & SON CO.

**CHICAGO:** Western Avenue, 17th to 18th Sts.

**NEW YORK:** Hudson Terminal, 50 Church St.

Send for Catalog 25

THE GENERAL CRUSHED STONE CO.,  
So. Bethlehem, Pennsylvania,

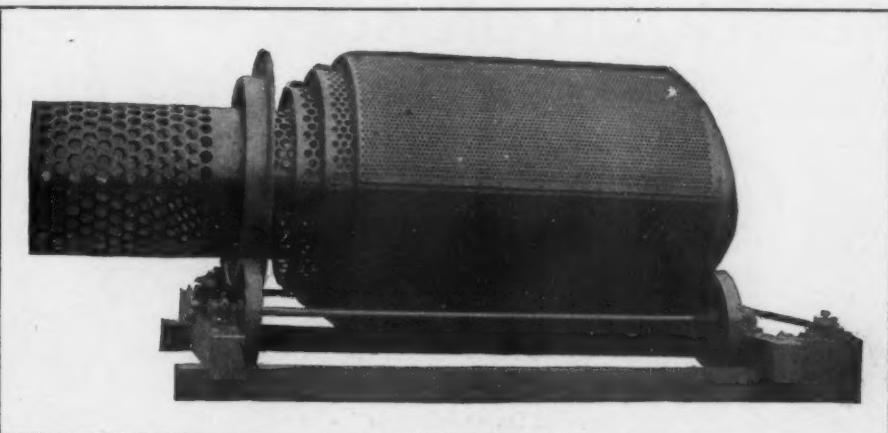
have been using one of our Common Sense Elevators for six years—  
capacity 400 tons an hour.

**THE C. O. BARTLETT & SNOW CO.** CLEVELAND OHIO

**A Valuable Space** Is For Sale on the  
FRONT Cover of **ROCK PRODUCTS**

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# JOHN O'LAUGHLIN'S SCREEN



The advantages of these screens are described in detail in a circular which WE WILL MAIL TO ANY ADDRESS. Mr. John O'Laughlin, the inventor, has designed many notable improvements in rock-drilling, quarrying, crushing and screening machinery, and uses these improved screens in his own crushing plants, which others have declared "to be the most perfect in existence in every detail." The O'Laughlin Screen is an important factor in the most modern and perfect stone-crushing plant.

made solely by Johnston & Chapman, is the

## ONLY SCREEN

on the market for wide-awake quarry-men and miners, who want to separate crushed granite, limestone or other minerals, gravel, sand, coal or coke. It will soon earn its cost in saving of repairs, and maintenance, and reduced power, and will do more and cleaner work than any other cylindrical screen of like area. No one can afford to keep old traps in use when the O'Laughlin installed

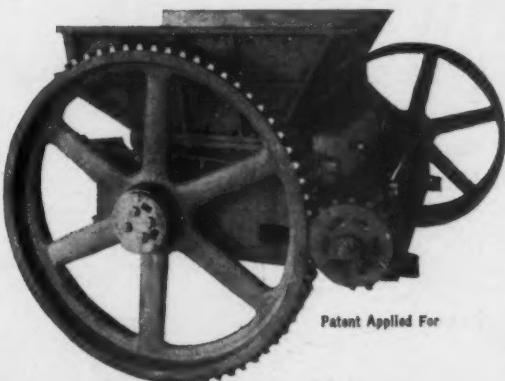
## NOW

will from the moment it starts give a better and larger product, and a big interest on your investment in continuous saving in cost of repairs, renewals, and power. For particulars address:

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Corner Francisco and Carroll Ave., Chicago, Ill.

Perforators of Sheet Metals, Flat, Cylindrical, and Conical Perforated Screen Plates for Quarries, Mines, Reduction Works, Mills and all Industrial Purposes.

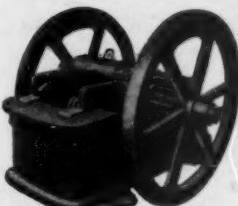


Patent Applied For

## SINGLE ROLL CRUSHERS

For Limestone, Phosphate Rock and Cinder, Etc. Any Capacity from 5 to 500 Tons per Hour. More Easily Fed, Makes Less Fines than Either a Jaw or Gyratory Crusher. Information and Prices for the asking.

**McLANAHAN-STONE MACHINE CO., Hollidaysburg, Pa.**



Lewistown Foundry & Machine Co.  
LEWISTOWN, PA.

Builders of heavy duty crushers and glass sand machinery. Glass sand plants equipped complete.

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Ask—  
CHICAGO GRAVEL CO., - Chicago, Ill.  
JOLIET S. & G. CO., - Plainfield, Ill.  
PETERSON & WRIGHT, - Akron, Ohio  
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About Their Plants



Stone Crushing Cement and Power Plants

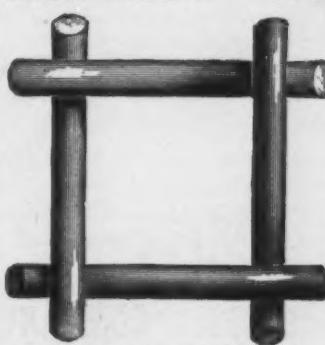
**J. C. Buckbee Company, Engineers, CHICAGO**

## BUFFALO WIRE WORKS CO.

BUFFALO, N. Y.

We make

## Wire Cloth



From the coarsest to the finest, for all purposes,

Also

WIRE CONCRETE REINFORCEMENT, WIRE WORK of all kinds, CORRUGATED WIRE "LATHING"

1-Inch Space, No. 4 Wire

Send for Our No. 416 Catalogue.

Tell 'em you saw it in ROCK PRODUCTS

We Equipped  
More

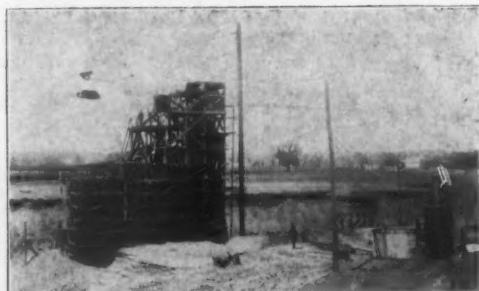
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During 1911 Than Any  
Other Company

## WE MADE GOOD ON ALL

Stone Crushing Plants  
Sand and Gravel Plants

Lime Plants  
Conveying Systems

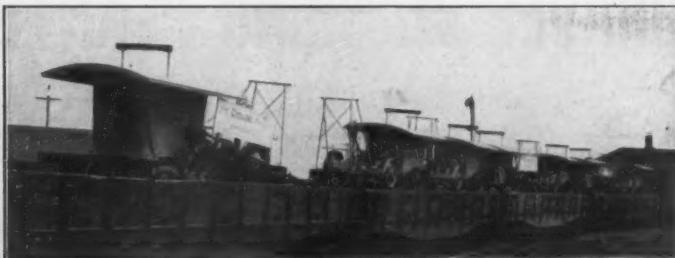


MACKINAW SAND AND GRAVEL CO.'S PLANT.



*We can possibly refer you to others in your vicinity—Write us.*

**RAYMOND W. DULL & COMPANY**  
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### Big Blast Hole Drills for Quarries

WHEN you hear Big Drill and Quarry mentioned together, it means a Cyclone Drill—they are one and the same thing; it is the machine that is effecting a saving of from 25 to 75% in producing stone.

The largest quarry installation in the United States, the largest in Canada and the largest in Europe is made up of Cyclones. There's a reason—would you like to know it?

Suppose we send you, say, twenty letters from men who have installed these drills and tell in these letters about the savings effected in their various quarries; would they interest you? Shall we send them? They may tell you something which will start dollars rolling your way.

Just remember that you are competing against the other fellow's cheaper production. Do you recognize the man who is really paying for the modern equipment?

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New York Office, 50 Church Street  
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ORRVILLE, OHIO

### Can You Imagine Anything Better

Than a Plant Equipped with the Improved Conical Quick-Change Washing Screens, Handy, Efficient, Reliable and the Belt Conveyors with Indestructible Heavy Steel Idler Pulleys, and Separating Boxes which Automatically take the Sand from the Muddy Water?

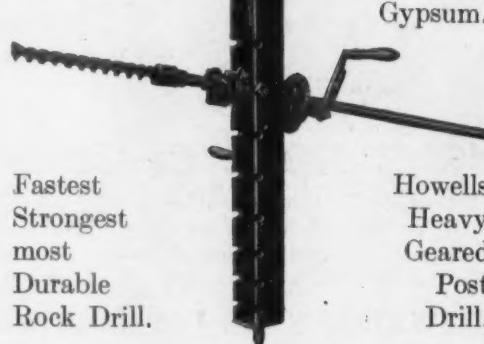
Ask the following people how they like our machinery.

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*We can possibly refer you to others in your vicinity—Write us.*

**HOWELLS DRILLS**  
for all purposes where drills are required. Combine efficiency and economy.

Standard  
Rock  
Drill of  
the World.



Howells  
Drills  
Bore the  
World's  
Gypsum.

Fastest  
Strongest  
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Rock Drill.

Howells  
Heavy  
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Drill.

Thousands of these drills doing duty everywhere—speak for themselves.

These drills have a record—can't be beat. Will drill from five to seven inches per minute in gypsum or soft rock.

*We make over 40 different kinds of Auger Drills, operated by Hand, Electricity and Air.*

**Howells Mining Drill Company**  
Plymouth, Pa., U. S. A. :: Write for Catalogue  
No. 28 today

## THE VALVE BAG

The neatest and best package for handling your cement, lime, plaster, alca, ground stone, etc.

## THE VALVE BAGGER

A device unequalled for sacking these products. Your inquiries will have our prompt attention.

The  
**Urschel-Bates Valve Bag Co.**  
TOLEDO, OHIO

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A TRAIN OF TROYS AT ATLANTIC CITY

**"I've a big hauling job. What can your TROY Reversibles do for me?"**

Write us a note like this. We'll send you the answer from Texas and New Jersey; from Michigan and Mississippi—in fact, from every part of this country and Canada.

The answer is always the same—**50 TO 80% SAVING OVER TEAMS.** Where would that boost the profits on your job?

GET CATALOGUE 2-RR

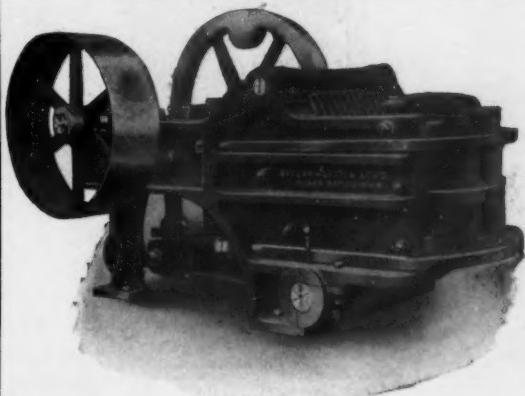
**The Troy Wagon Works Co.,** 101 East Race Street, Troy, Ohio

## KING'S WINDSOR CEMENT FOR PLASTERING WALLS AND CEILINGS

Buffalo Branch, CHAS. C. CALKINS, Manager  
322 W. Genessee Street.

Not the hardest, but the toughest and best Wall Plaster made—Can be applied with less labor. Has greater covering capacity than any other similar material

**J. B. KING & CO., 17 State Street, New York.**



Nippers—17 x 19", 18 x 26", 20 x 30" and 24 x 36".

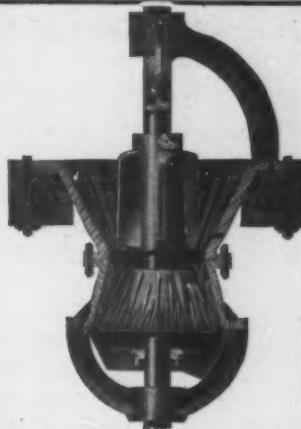
## Jaw and Rotary CRUSHERS

For all Rocks and Ores Softer than Granite

GYPSUM MACHINERY—We design modern Plaster Mills and make all necessary Machinery, including Kettles, Nippers, Crackers, Buhrs, Screens, Elevators, Shafting, etc.

Special Crusher-Grinders for Lime

**Butterworth & Lowe**  
17 Huron Street, Grand Rapids, Mich.



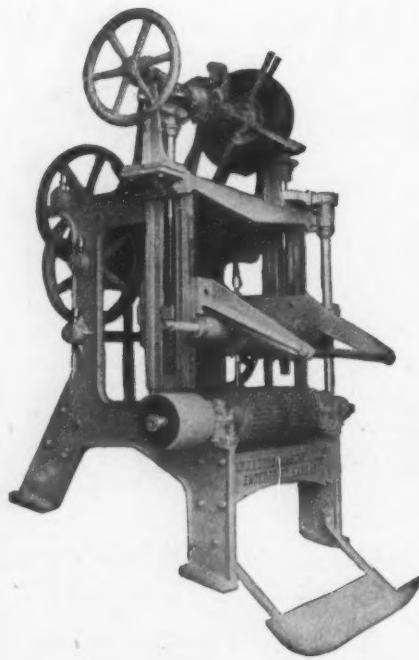
Crackers—5 sizes—many variations.

## OUR CLASSIFIED SECTION ADVERTISEMENTS

Are the business mart of the industry — If you want to dispose of old machinery, to buy old machinery, to get a position, to hire any kind of help, to dispose of surplus stock, to sell your business, to buy lands or sell lands; place an advertisement in these columns. Advertisements cost 25 cents a line for one insertion, 45 cents per line for two insertions and 60 cents per line for three insertions. Try it.

**ROCK PRODUCTS, 537 S. Dearborn St., Chicago, Ill.**

Tell 'em you saw it in ROCK PRODUCTS



## Points of Interest Concerning The Ehrsam Wood Fibre Machine

The log feeds itself to the saw. As the log decreases in diameter the Speed of the log and of the feed INCREASES AUTOMATICALLY. In other words, the Peripheral Speed remains constant.

The feed of the log to the saw is in direct proportion to the speed of the log. This automatic uniformity of feed INSURES UNIFORMITY of FINENESS in the PRODUCT.

No frictional devices are used, none being necessary.

All the working parts are planed. All of the gears are cut from solid steel. All of the parts are interchangeable and numbered, so that duplicate parts can be quickly obtained and easily put in position.

The Saw mandril is extra heavy and made of the best crucible steel.

The journals are chain oiling. No Machine can be more substantially built. Write for full information.

Okeene, Okla., June 14, 1911.

J. B. Ehrsam & Sons, Enterprise, Kans.  
Gentlemen:—Some time ago I received a letter from you asking how the wood fibre machine you shipped us is doing. Will say it is the best I ever used. In regard to any suggestions I could make as to how it might be improved, will say that I can make none, as it is O. K. Yours truly,  
SOUTHWEST CEMENT PLASTER CO.,  
Frank Dodge, Sup't.

**Manufacturers of Jaw and Rotary Crushers for Gypsum, Vibrating Screens, Hair Pickers, Wood Fibre Machines, Calcining Kettles, Plaster Mixers, Power Transmission**

## The Enterprise Vertical Burr Mill

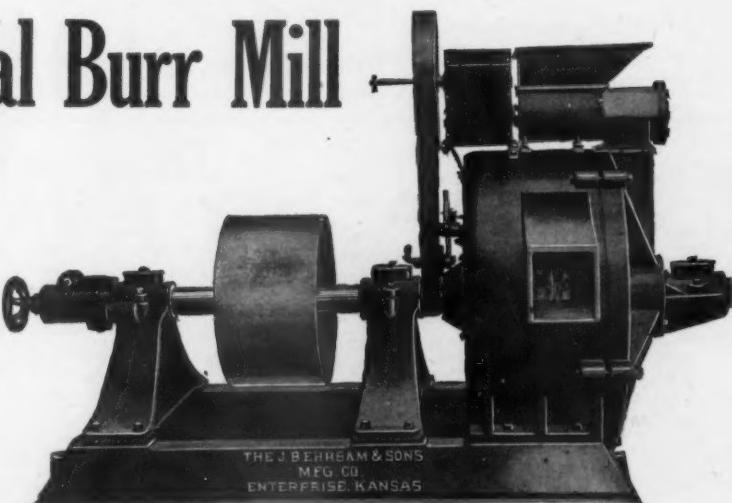
is especially designed for grinding gypsum, limestone, coal, coke, paint, rock, foundry facing, carbon, salt, and other similar substances.

It is STRONG and DURABLY built.

Has INTERCHANGEABLE STONES, which can be easily removed for dressing and replaced.

Is provided with our POSITIVE CONTROLLABLE FEEDER, which feeds an absolutely uniform stream into the mill at the required capacity.

MANY OTHER  
ADVANTAGES.



**The J. B. Ehrsam & Sons Mfg. Co.**  
Designers and Builders of  
Complete Equipment for Plaster Mills  
**ENTERPRISE, KANSAS, U. S. A.**

Improved  
Modern  
Lath



Fire-Proof  
Insulating  
Sound-Deadening

# King's Fibrous Plaster Board

Standard Size 32' x 36'

**THE RESULT OF "TRADE DEMANDS"**

STRENGTHENED to stand the GREATEST STRAIN to which such material is subjected  
TOUGHENED to a woody consistency to stand NAILING AND HANDLING

SHIPMENTS made to dealers of STRAIGHT OR MIXED CAR LOADS

## KING'S FIBROUS PLASTER BOARD

CALCINED PLASTER

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MARBLE DUST

## PLASTER BOARD NAILS

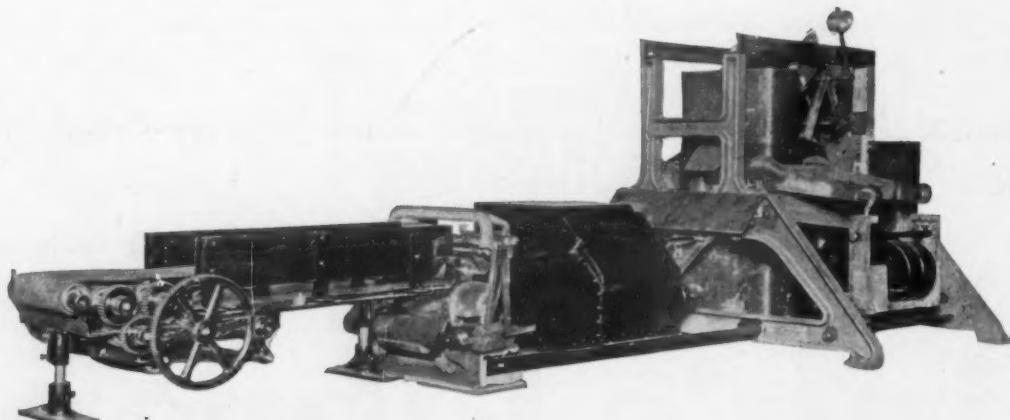
**SERVICE** The location of our works at the greatest railroad terminus in the East and our several warehouses enable us to make **Prompt** Shipments at all times.

# J. B. KING & CO.

Plaster Board Department:  
17 State Street, New York, N. Y.

WAREHOUSES:  
Boston, Mass. Providence, R. I.  
Chester, Pa. Hartford, Conn.  
Norfolk, Va. Buffalo, N. Y.  
Brunswick, Ga.

WORKS:  
New Brighton, Staten Island,  
NEW YORK



Cement of the highest quality is only made by the exact required proportions of

## **CLINKER AND GYPSUM**

Your chemist, with this machine, will give the desired result

### **AUTOMATIC WEIGHING MACHINE COMPANY**

134 to 140 Commerce Street, NEWARK, N. J., U. S. A.  
439 Pierce Building, ST. LOUIS, MO., U. S. A.

## **THE NATIONAL RETARDER CO.**

Mills at

**Webster City, Iowa**  
**Port Clinton, Ohio**

Successors to

**The Chemical Stucco Retarder Co.**  
Webster City, Iowa

**The Ohio Retarder Co.**  
Port Clinton, Ohio

**The Binns Stucco Retarder Co.**  
Uhrichsville, Ohio

The same standard quality of retarder will be produced  
and marketed by the same people at the right price—  
only a change in name of corporation.

**MAIL ORDER TO NEAREST MILL FOR PROMPT SERVICE**

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# Delivering the Goods!



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Graham, Buckwheat, Rye  
and Entire Wheat Flour.  
Granulated Corn Meal,  
White and Yellow, Rye Meal.  
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A. L. BARTLETT CO.  
GRAIN AND MILLING  
(CEREAL GOODS)

Office and Milling: Second &amp; Cedar Street

Mill: 4000 Horse Power



Replies to yours dated 25th

Rockford, Ill., March 29, 1912.

BUSINESS ESTABLISHED IN 1860

\*\*\*  
Straight Corn and Oat Feed,  
Coarse Corn Meal,  
Bran, Hay, Seeds, Lime,  
Building Material.  
\*\*\*

United States Gypsum Co.,

Chicago, Ill.

Gentlemen:

After years of experience we say emphatically --

"U. S. G. Co.'s Products first, last, and all the time."

We have tried nearly all of the others.

Yours very truly,

## Read This, Mr. Dealer!

Here is a frank statement of facts based upon an intimate acquaintance with the goods; a practical knowledge of comparative values:



Many other dealers in all parts of the country are saying the same thing.

## U. S. G. Products

are in a class by themselves. The progress of U. S. G. Products is the progress of the Gypsum Industry. Every day accentuates this fact.

**Every Day, Some Dealer Somewhere, wakes up to the superior-money-making and satisfaction-giving advantages of the U. S. Gypsum Line. The sooner you "lock arms" with "U. S. G." the quicker and greater will be your profits. Let us "help you deliver the right goods."**



# PEERLESS

means without an equal and that is what our products are beyond the shadow of a doubt.

## Peerless Plaster-Board

The Best on the Market To-day

Peerless Plaster Board has no superior on the market today. Strength, durability, and uniformity in thickness with clean cut edges are its chief virtues.

Peerless Plaster Board finished with Peerless Plaster make a Peerless Wall. Builders' Supply Retailers say it is the best Plaster Board manufactured. If you are "from Missouri" write us today for sample and prices.

— Write today for our —  
PEERLESS PROPOSITION

**M. A. REEB, : Buffalo, New York**



Peerless Cement Plaster  
Peerless Wood Fibre Plaster  
Peerless Sanded Plaster  
Peerless Ready Finish  
Peerless Portland Stucco

(Exterior Plastering)

We Ship Mixed Cars  
of Plaster and Board

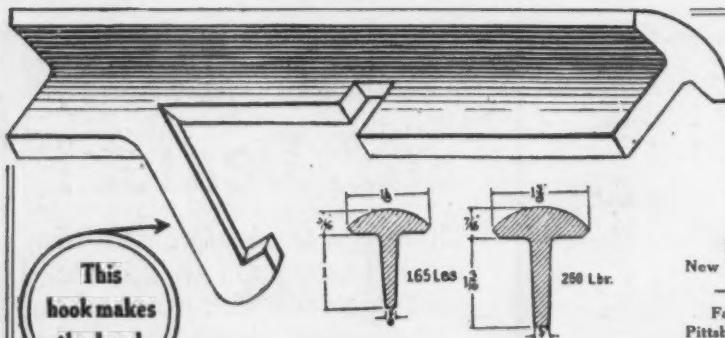
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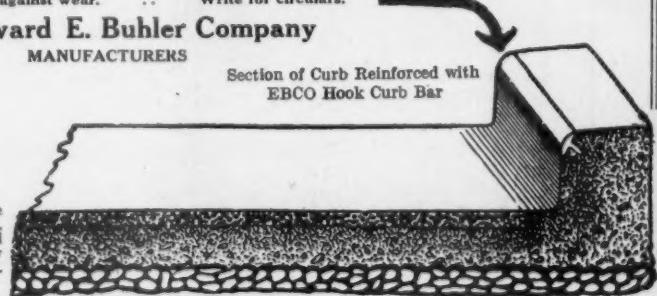
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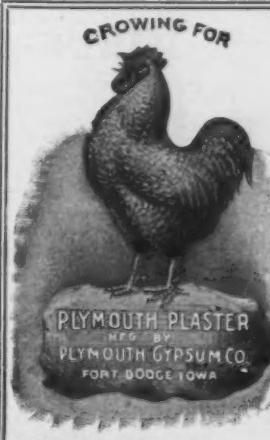
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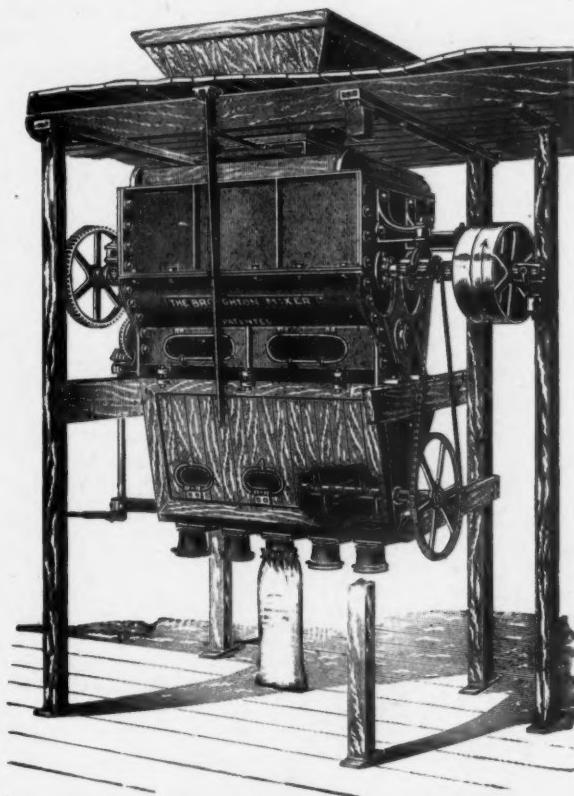
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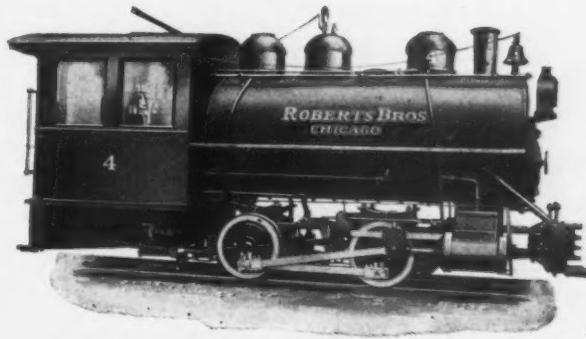




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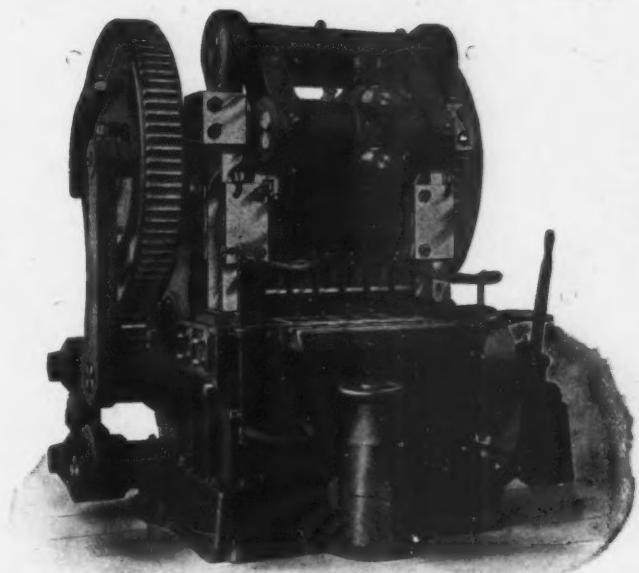
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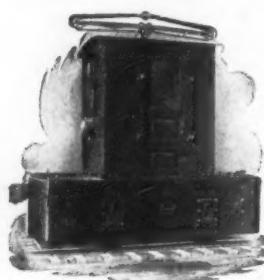
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